



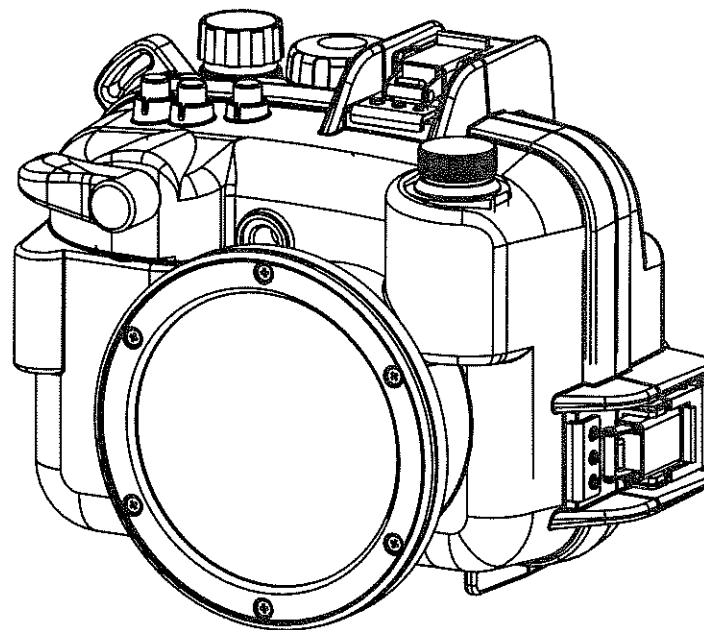
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# SEA&SEA

## *U/W DIGITAL CAMERA HOUSING*

# ***DX-5400***

## **Instruction Manual**



# SEA&SEA

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# DX-5400

Underwater Housing for Nikon Coolpix 5400

## Introduction

Thank you and congratulations on your purchase of Sea & Sea's DX-5400. Sea & Sea's DX-5400 is a digital camera housing designed exclusively for use with the NIKON Coolpix 5400 Digital Camera. It is depth rated to 200 feet (60m). Please read this manual before use and retain for future reference.


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## Safety Precautions

※ Misuses listed under the following precautions categorized as "Warning!" or "Caution!" could lead to serious consequences. Please observe the precautions as they contain highly important information related to personal and product safety.

Definition:

 **CAUTION!** : Situations that could result in property damage, personal injury or deterioration in product quality and reliability.

### General Precautions for the Housing

#### **CAUTION!**

Always make sure that the strobes and accessories are securely mounted to prevent them from falling off, getting lost, causing personal injury or equipment malfunction.

Do not carry or swing the housing by the hand strap. Be careful not to drop the housing. Violent impact can severely damage the housing.

Do not open the housing in a wet or sandy environment. Protect the interior from moisture and debris to prevent equipment malfunction.

Do not alter or modify the housing. User modifications can result in flooding or malfunction. User modifications will void the warranty.

In the event of flooding, discontinue use immediately. Turn off the housing, camera, and accessory strobe. Bring or send the housing to an authorized Sea & Sea dealer for evaluation and repair.

If flooded, beware of increased pressure inside the housing. Acid leakage and gas build-up from wet batteries may cause an explosive reaction. When opening the cases, handle with extreme care.

Always rinse this product with fresh water after use. Be sure the port and cases are securely sealed.

When rinsing the housing without the strobe sync cord attached, be sure the sync cord connector cap and housing bulkhead cap are securely in place to prevent flooding.

Handle this product carefully so as not to scratch the port surface or the finder window.

Always dry the port, finder, and LCD window with a soft cloth to prevent salt residue from marring the glass surfaces.

Never use petroleum solvents, such as alcohol or paint thinner, to clean the housing; such products might mar or otherwise damage the port, finder window, and the housing's finish.

When mounted, friction of the camera with the interior of the housing may create scratches on camera dials and buttons. This will in no way impair the camera or housing's performance.

SEA & SEA Products Ltd. will not be responsible for unobtained images or costs related to the shooting of such images due to malfunction of the housing, camera, strobe or accessories.

This product incorporates plastic parts. Do not subject this housing to extreme heat, such as on a car dashboard or direct sunlight. Plastic parts are prone to warping.

SEA & SEA Products Ltd. will not be responsible for any damages, repairs or replacements of the camera, lenses or accessories used with this housing due to flooding caused by user mishandling.

### Precautions for Storage of the Housing

#### ⚠ CAUTION!

To prevent mildew and malfunction, do not store in a damp or humid environment. Do not store in a chemically-laden environment. Naphthalene, camphor, or other harmful chemicals can cause mildew, corrosion, and other damage to the metal and rubber parts in this product.

## Handling and Maintenance of the O-Ring

The O-ring on the front case of your housing provides an airtight waterproof seal. Improper handling and maintenance of the O-ring can cause flooding. To maintain its waterproof integrity, please observe the following precautions carefully.

#### ⚠ CAUTION!

Blue O-rings are used for some Sea & Sea products. The blue O-rings are specially processed to incorporate silicone oil. The silicone oil gradually seeps out to maintain lubrication on the O-ring. For maintenance of this blue O-ring, use only the Sea & Sea brand silicone grease (in a tube with a BLUE cap and lettering). Never use Sea & Sea grease in a tube with a BLACK cap. Never use any brand of grease other than the specified Sea & Sea brand; the O-ring will lose its waterproof capability. You will have to replace the O-ring. If the O-ring is not greased, the cases cannot open and close smoothly; the housing may flood. Always check that the O-ring is properly lubricated.

### 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. 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.

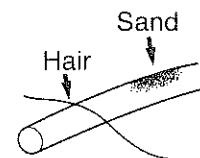
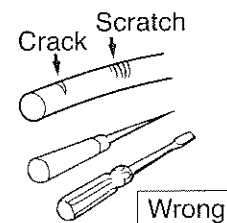
Always store your O-ring in an airtight container and in a cool environment. Keep out of direct sunlight. Take care that it is stored flat and not bent or twisted. Do not place any heavy objects on it; excessive weight will flatten it and impede its sealing capability.

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

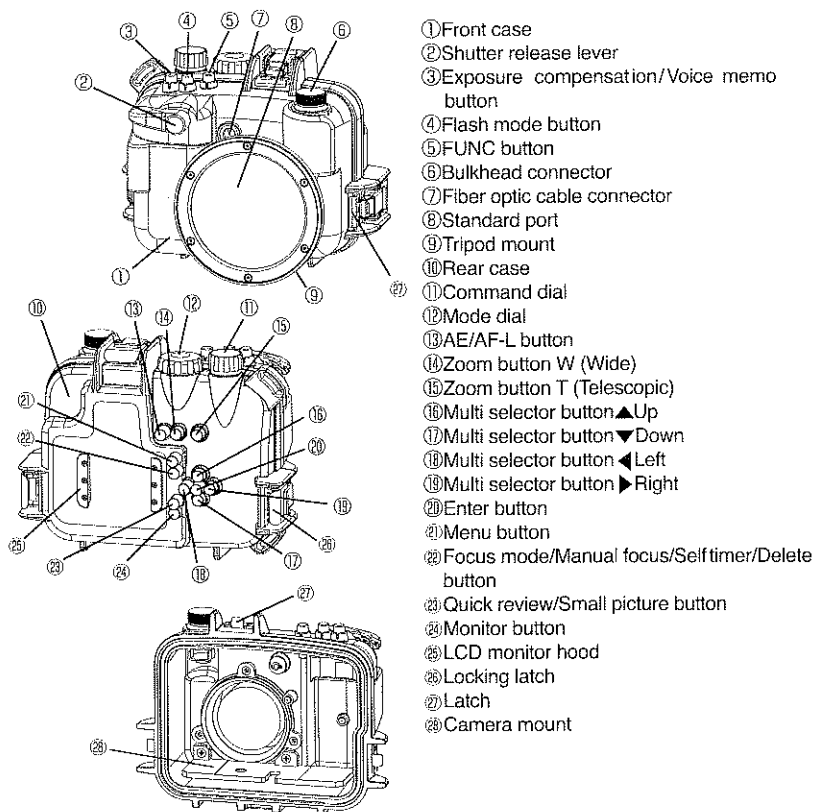
The life of the O-ring depends on the diligence of your maintenance, frequency of use, and storing conditions, but on average, if you maintain your O-ring properly, it will retain its watertight integrity for one year.

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

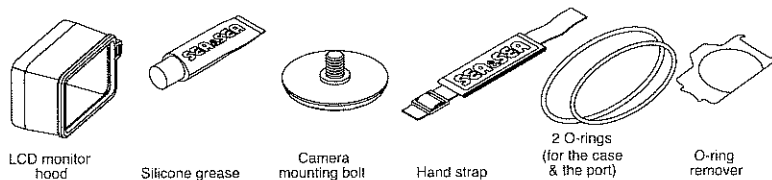
Before use, remove the O-ring from its groove and carefully check the O-ring, the O-ring groove and the O-ring contact surface. A thorough examination of the O-ring and O-ring groove is not possible unless the O-ring has been removed.



## Identification of Parts



### Accessories



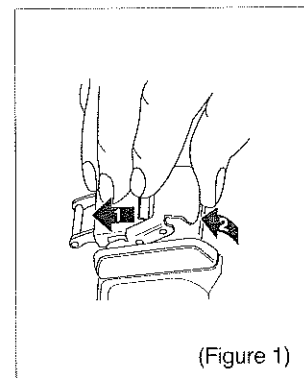
## Opening and Closing the Locking Latches

### Opening the Locking Latches

1. Place the housing face down on a solid surface. Hold the housing down firmly with one hand to prevent the cases from popping open when the latches are released.
2. Place fingers on the latch as shown. (Figure 1)
3. Press down on the lock release with your index finger, then pull the wide part outward with your thumb. (Figure 1) The latch will open.
4. Once the latch is open, secure it in position as shown. (Figure 2)

### CAUTION!

To prevent injury, lift the locking latch with the ball of your finger and not with your fingernail.



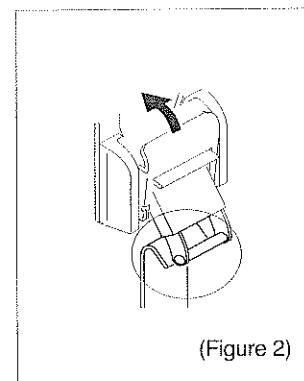
(Figure 1)

### Closing the Locking Latches

1. Mate the rear case onto the front case. Check that the front and rear cases are correctly aligned and that the O-ring is not pinched between the cases.
2. Snap closed the locking latches on both sides simultaneously. Do not close one at a time; that may cause uneven closure and would result in flooding.
3. Then lock the latch on top.

### CAUTION!

Examine the O-ring and O-ring channel and make sure they are not scratched or contaminated with sand, hair, dust, etc. Make sure that the latches are securely locked.

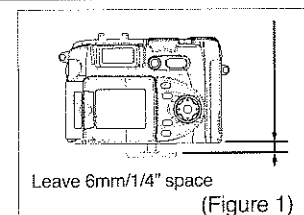


(Figure 2)

## Mounting the Camera in the Housing

### Mounting

1. Remove the camera strap and lens cap if they are attached to the camera.
2. Turn on the power of the camera. The camera cannot be turned on once the camera is mounted in the housing.



3. Insert the camera mounting bolt into the tripod mount at the bottom of the camera. Turn the bolt until the space between the bolt and the camera is approximately 6mm/1/4". (Figure 1)

4. Fit the camera into the housing's camera mount and slide it forward till it stops.

At this time, make sure that the camera strap clips are folded upward so as to not interfere with the O-ring. The sync cord should extend out of the upper left part of the housing or it will interfere with the camera when sliding it into position. (Figure 2)

5. Tighten the mounting bolt to secure the camera in position.

6. Insert the sync cord into the accessory shoe on the camera.

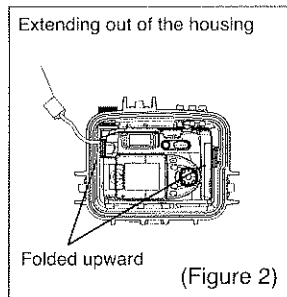
7. Fit the rear case onto the front case and secure the locking latches.

### Connecting the Housing Sync Cord to the Camera

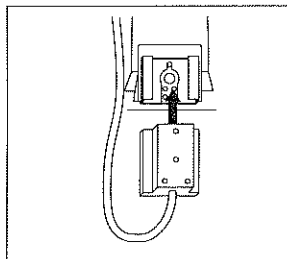
Insert the housing sync cord into the camera's hot shoe as shown. Push it in till it stops.

#### ! CAUTION!

When disconnecting the camera sync cord, push the connector outward with your finger. Do not pull the connector out by the cord. Abusive handling of the cord can damage interior circuitry.



(Figure 2)



### Removing the Camera from the Housing

1. Disengage the sync cord from the hot shoe. See Caution! above.

2. Unscrew the mounting bolt.

3. Carefully pull the camera out of the housing.

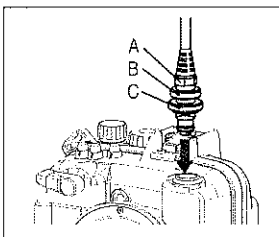
## Connecting the Strobe Sync Cord Connector

The DX-5400 is compatible with Sea & Sea's YS-90DX and YS-90AUTO strobes. They are mated via a standard five-pin sync cord connector and/or a fiber optic cable.

1. Examine the sync cord connector contact pins; make sure they are clean.

2. Examine the sync cord connector O-ring for cuts and debris. Make sure the O-ring is properly lubricated.

3. Remove the bulkhead connector cap from the housing.



4. Align the yellow mark on the strobe sync cord connector with the index notch on the housing bulkhead connector. Push the strobe connector in.

5. Turn part "B" till the connector is firmly fixed.

6. Turn part "C" until the connector is locked into place.

7. To remove the connector, loosen part "C", then part "B", and pull part "A" straight out.

#### ! CAUTION!

To remove the strobe sync cord connector after use underwater, turn the housing upside down, and then pull out the connector. This will prevent any residual moisture from penetrating the bulkhead connector. If the bulkhead connector gets wet, dry it off immediately.

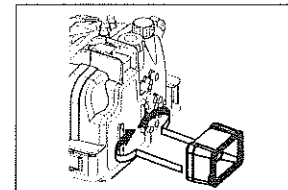
Use only compatible strobes with this housing. Use of incompatible strobes may cause malfunction of the housing.

## Attaching the LCD Monitor Hood

● Push the side edges of the LCD monitor hood into the hood holder as shown.

#### ! CAUTION!

● Do not carry the housing by the hood. It cannot support the weight of the housing. It will come off and the housing will fall.



## Attaching the Accessories

The DX-5400 accepts Sea & Sea accessories that are sold separately. By using DX-5400 in combination with optional accessories, you will be able to accomplish a greater array of imaging techniques.

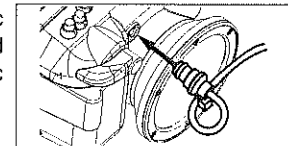
#### ! CAUTION!

Lenses, strobes and other accessories have different depth ratings. Check the depth rating of each accessory before use.

Read the instruction manuals of the accessories before use.

## Connecting the Fiber Optic Cable

The DX-5400 has a port that accepts a fiber optic cable connected to Sea & Sea external YS-25 and YS-90 DX and Auto strobes. To use a fiber optic cable, plug the cable fully into the port as shown.



Because the DX-5400 front case is constructed of an opaque resin, the camera's built-in flash cannot provide adequate illumination for underwater imaging. An external strobe is necessary for most types of underwater imaging.

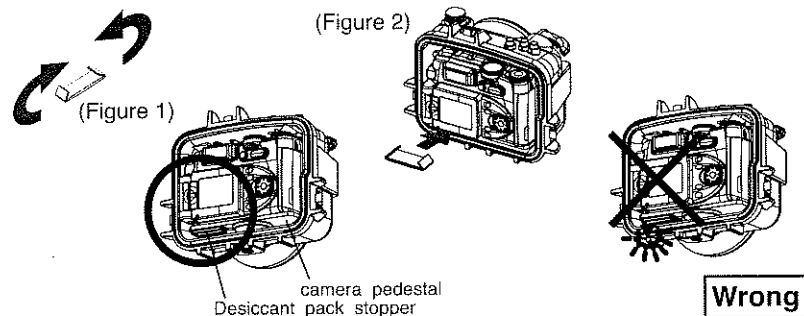
- (1) An accessory strobe will add definition and color to wide angle imaging.
- (2) An accessory strobe can illuminate a subject against a strong back light
- (3) The light from an accessory strobe can be directed to avoid illuminating suspended particles in the water (backscatter).
- (4) In macro imaging, the light from an accessory strobe can be precisely directed to correctly illuminate the subject even when the subject is very close to the lens.

### CAUTION!

Since the fiber optic cable transmits the light from the built-in flash to the external strobe, the system may not work properly if the cable port is contaminated. Before using the fiber optic cable, make sure that the cable port and the cable plug are free from salt residue, sand, and other debris.

## Installing the Desiccant (Silica Gel) Pack

- 1) Fold both ends of the desiccant pack as shown. (Figure 1)
- 2) With the folded ends of the desiccant pack facing upward, slip the pack into the space between the camera mount and the front case. (Figure 2)
- When placing the desiccant pack, push it in beyond the desiccant stopper. Failure to do so can dislocate the pack.



### CAUTION!

Make sure that the edge of the desiccant pack does not interfere with the O-ring seal.

When closing the rear case, make sure that the desiccant pack is not pinched between the rear and front cases.

It is recommended that the desiccant pack be replaced every five dives, though the efficacy of the desiccant pack depends on its state of preservation.

## Specifications

### <Compatible Camera>

NIKON Coolpix 5400

### <Available Controls>

Shutter release lever, exposure compensation / voice memo button, flash mode button, FUNC button, command dial, mode dial, AE / AF-L button, zoom buttons, multi selector, enter button, menu button, focus mode / manual focus / self-timer / delete button, quick review / small picture button, monitor button

### <Construction>

Front case: ABS resin

Rear case: Polycarbonate

Port: Galvanized corrosion-resistant aluminum alloy

### <Depth Rating>

60m / 200 ft.

### <Dimensions/Weight>

167 x 129 x 117mm / 6.6 x 5.1 x 4.6 inches (WxHxD)

1,060g / 2.3 lbs. (including the port)

### <Compatible Strobes>

YS-90AUTO, YS-90DX, YS-25 AUTO, and YS-25DX (These strobes are not TTL-compatible with the Coolpix 5400 when the camera is mounted in the DX-5400 housing.)

### <Accessories>

LCD monitor hood, silicone grease, camera mounting bolt, hand strap, O-ring, O-ring remover, desiccant (silica gel) pack

※Specifications and prices are subject to change without notice.