

INON

X-2 for **EOS70D**

User Manual

English

Thank you for purchasing INON housing.

The INON X-2 for EOS70D is underwater camera housing for Canon EOS 70D.

Please make sure to read and understand this manual and camera's user manual before you use.

Precautions

- This product is designed and manufactured for use in severe conditions and all housings have been pressure tested in water and fully checked for proper function before shipping. However it is essential to receive pre dive check and post dive maintenance by a user, and periodic overhaul at INON to ensure your X-2 housing maintains optimum performance including factory default water-proof property. Please carefully read through this manual to familiar with functions, characteristics, proper usage and maintenance procedures before you use this product.
- Please note that levers/buttons of the housing may scratch housed camera/lens.
- INON Inc. cannot indemnify anyone for any loss/damage on camera/lens regardless of directly/ indirectly caused by malfunction/flooding of the product.
- Should you have trouble like flooding or malfunction, INON Inc. can not take any responsibility for incidental damage (relevant expense to take a shot or lost earnings etc.).
- Impact shock on the housing may cause damage/malfunction of housed camera/lens as well. DO NOT transport camera/lens housed in the housing except for a short time like carrying equipment to a dive point just before diving.
- Please be advised that some of images in this manual may be different from actual product specification (color etc.) for the illustrative purpose.

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Measures to Prevent Accidental Flooding

The INON X-2 housing is waterproof due to a rubber O-Ring enabling underwater use.

O-Rings and O-Ring contact surfaces must be inspected each time before using housing to ensure waterproof integrity.

O-Ring inspection locations

The user serviceable O-Rings are [Main O-Ring] and [Port O-Ring]. Be sure to check condition of each O-Ring.

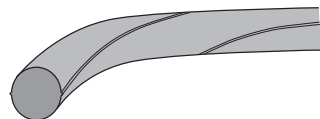
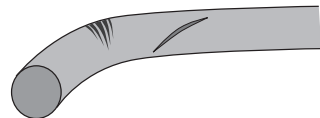
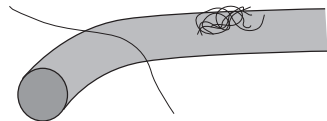
O-Ring inspection method

These are the essential factors ensuring waterproof property;

- O-Ring itself,
- O-Ring contact surfaces,
- O-Ring grooves,
- If O-Ring is properly seated in groove,
- Grease

First, ***inspect the O-Ring as it is seated in the groove.*** If any of the following are evident, there is a high chance that the housing will flood if placed in water. Be very careful about checking these points:

- If hair, sand, lint or other debris is attached to the O-Ring
 - Wipe-off the debris.
 - Remove O-Ring and wipe-off the debris as instructed in [Installing and Removing O-Ring (P.5)]
- If the O-Ring is cut or cracked
 - The O-Ring must be removed and replaced with a new O-Ring. (See [Installing and Removing O-Ring (P.5)] for replacement)
- If the O-Ring is twisted
 - The O-Ring must be removed and reinstalled uniformly with no twists or other irregularities. (See [Installing and Removing O-Ring (P.5)] for reinstallation)
- If there is a scratch, blemish or other imperfection on the O-Ring contact surfaces
 - The housing must be inspected by an INON service facility. Contact your purchasing dealer for advice.



O-Ring Maintenance

Periodically re-grease O-Rings only using the supplied INON Grease, to protect O-Ring and increase water resistance.

INON yellow O-Rings are compounded with a special type of oil which naturally migrates to the O-Ring surface for protection providing less maintenance necessity, but *INON yellow O-Rings are not compatible with other silicon grease which may cause the O-Rings to swell or deform, causing poor seal and water leakage. Always use "NON Grease"*. Use of non-INON grease will void warranty.

- Uniformly apply thin film of supplied INON grease on protuberant part of the Main O-Ring *as it is seated in the O-Ring groove*.
- Lens port O-Ring may get damaged with friction. So apply *a little extra amount* of supplied INON grease on O-Rings of lens port (*as O-Ring seats in O-Ring groove*) and their contact surfaces. Refer to [Preparation for shooting — Housing preparation] (P.26) for detail.



O-Ring itself could degrade in result of deformation, wear or aging. *Periodical overhaul at INON service facility is recommended* also for checking other parts not serviceable by user. Please see [Handling Precautions/Maintenance — Overhaul] (P.38) for detail.

Always use supplied INON grease for yellow O-Rings. Additional grease is commercially available. Refer to [Reference — Accessory] (P.39).

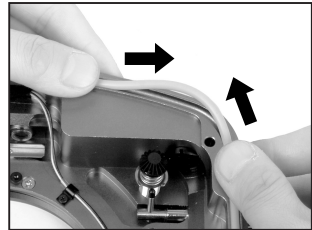
Installing and removing O-Ring

Setting condition of O-Ring is quite important. Especially Main O-Ring setting condition eminently affects waterproof property.

- Your X-2 housing has been pressure tested with the Main O-Ring seated in the housing before shipping. ***We would not recommend dismantling the Main O-Ring as normal self-maintenance*** since improper installation of the Main O-Ring could cause flooding.
- If you have to dismount the Main O-Ring as necessity (for removing foreign substances or replacing O-Ring itself), ***please send your housing to INON authorized service facility through purchasing dealer or strictly follow procedure below in case you attempt self-maintenance.***

● Installing and removing O-Ring

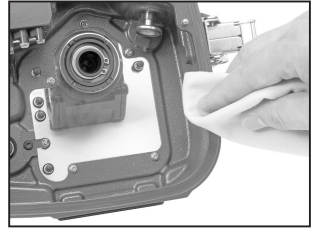
- 1 To remove, lightly squeeze from the sides so it bulges out, grasp and slowly pull out, as in the right image.
- 2 Check O-Ring and O-Ring groove to make sure they do not have any damage or foreign particles.
- 3 Uniformly apply thin film of supplied INON grease on the removed/replaced O-Ring.
- 4 Gently install the O-Ring in the O-Ring groove, not stretching/stuffing it too much, and making sure it is seated uniformly and not twisted. If you see any twists or bulges, take it out and re-install. After installing, even out the O-Ring by fingertips.
- 5 Check the O-Ring condition and make sure there is no unevenness or twist.
- 6 Conduct 「Check set condition of the Main O-Ring」 in next page.



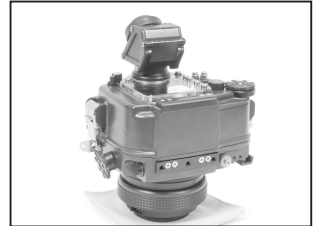
- ***Optimum waterproof property can be obtained when O-Ring uniformly clings to O-Ring groove and O-Ring contact surface.***
- ***Main O-Ring can be deformed if stretching/stuffing and resulting poor waterproof property.***
- ***Make sure to conduct [Check Set Condition of the Main O-Ring]. Especially take care on every corner where O-Ring tends to be deformed or twisted.***

● Check Set Condition of the Main O-Ring

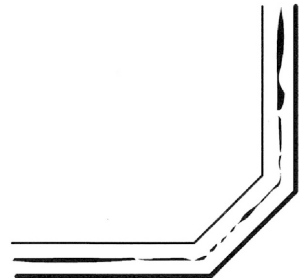
- 1 Wipe off residual grease on O-Ring contact surface of the Rear Body and apply thin film of INON grease on the Main O-Ring.



- 2 Refer to 「Preparation for shooting --- Installing Camera in Housing — Close Housing」 (P.30) to attach the Rear Body to the Front Body.



- 3 Then dismount the Rear Body. You can see grease on the O-Ring contact surface of the Rear Body. This transcribed grease shows set condition of the Main O-Ring. If you observe any "discontinuity" or "unevenness" like in the right image, the Main O-Ring has not been properly set. ***Please re-install the Main O-Ring according to previous section until no discontinuity / unevenness is observed.***



***Improper installation of the Main O-Ring could cause serious flooding.
Installation should be carried out carefully and surely.***

Leak Test

● Always check O-Rings, attachments and waterproof property (brief leak test) before each use

Test Method

- 1 Check O-Rings in accordance with previous section and conduct maintenance if necessary.
- 2 Check if combined lens port or viewfinder has been properly installed and re-tighten it if necessary.
 - Refer to [Preparation for shooting — Housing Preparation — Attaching Port/MRS Control Ring] (P.26).
 - Refer to separate user manual for respective viewfinder.
- 3 Immerse in a tub filled with fresh water to check waterproof property.

● In addition to above pre-use check, rigorous pressure test (leak test in pressurized water) is recommended in following cases.

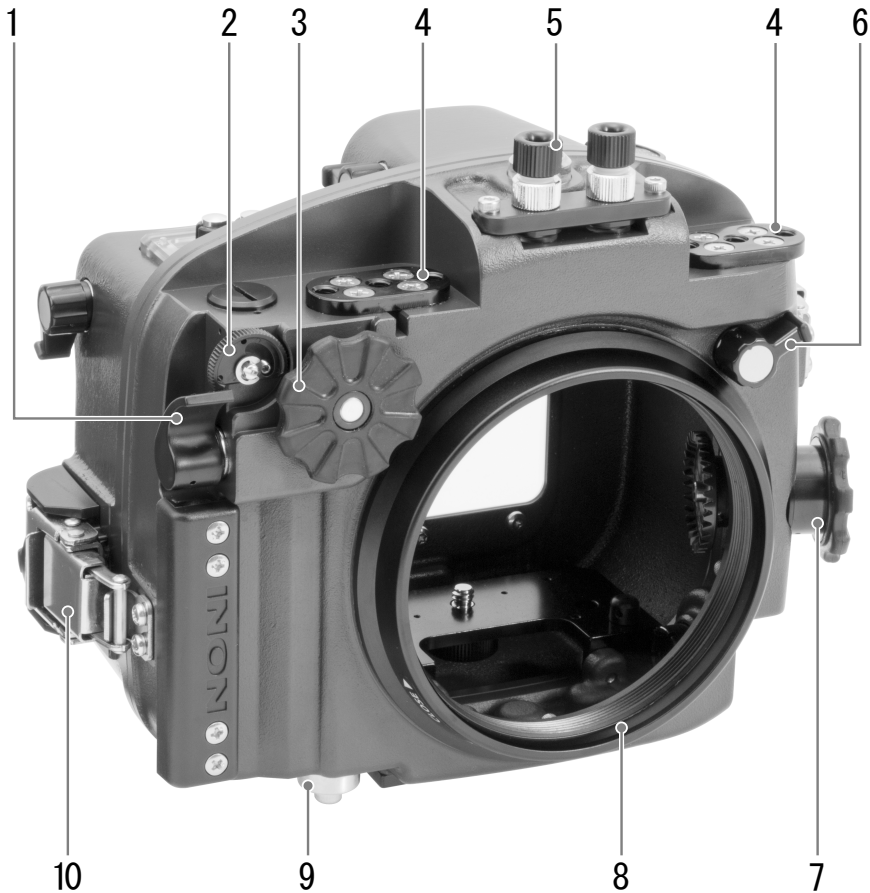
- First time to use your X-2 housing
- Re-install or replace O-Ring
- Dismount/replace lens port
- Travel long distance
- Transport in aircraft
- Travel across altitude variation
- Use after extended period of storage

Test Method

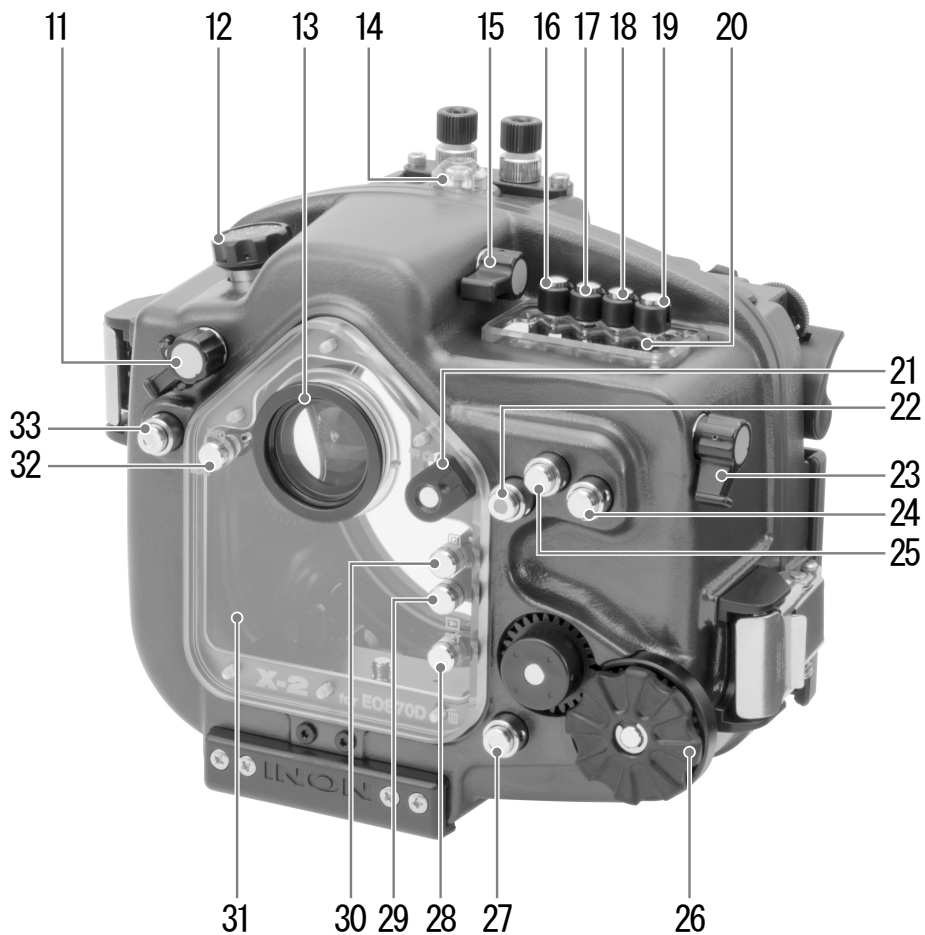
- 1 Conduct pre-use check (O-Rings, attachments and brief leak test)
- 2 ***Dismount a camera.***
- 3 ***Take the X-2 housing to underwater at same water depth as you intend to use the X-2 housing and make sure there is no problem like flooding on the housing.***

Preparations for shooting

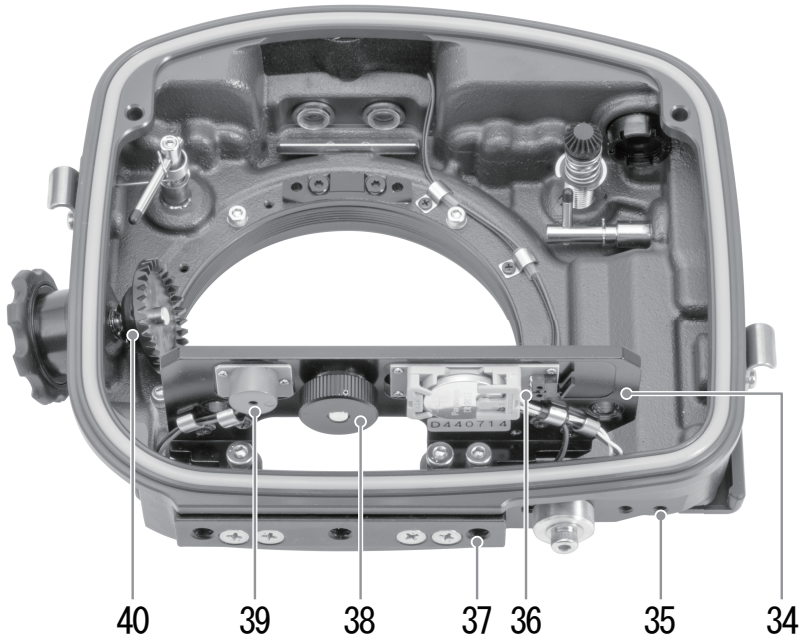
Name of Parts









- 1: Shutter lever
- 2: Shutter Lock switch
- 3: Main Dial
- 4: Base Adapter Fixing Screw Hole (M6)
- 5: Double Optical D connector
- 6: Flash button lever
- 7: Zoom/Focus knob
- 8: Port mount
- 9: Corrosion Suppression Unit
- 10: Compression Latch



- | | |
|--|--|
| 11: Power switch lever | 23: AF start button lever |
| 12: Mode Dial | 24: AF point selection/Magnify button |
| 13: Viewfinder | 25: AE lock/FE lock button/Index/Reduce button |
| 14: Leak Sensor LED | 26: Quick Control Dial |
| 15: Flash stow lever | 27: Erase button |
| 16: AF mode selection button | 28: Setting button |
| 17: Drive mode selection button | 29: Playback button |
| 18: ISO speed setting button | 30: Quick Control button |
| 19: Metering mode selection button | 31: LCD Monitor window |
| 20: LCD panel window | 32: Info button |
| 21: Live View shooting/Movie shooting switch lever | 33: Menu button |
| 22: Start/Stop button | |



- 34: Camera Stay
- 35: X-2 Holder II Spacer Screw Hole (M4)
- 36: Leak Sensor
- 37: Main Base II Screw Hole (1/4 Tripod Screw)
- 38: Tripod Screw
- 39: Leak Sensor Buzzer
- 40: Crown gear

<p>48</p> <p>47</p> <p>46</p> <p>45</p> <p>44</p>	   	<p>41</p> <p>42</p> <p>43</p>	<p>Accessory</p> <p>41: Finder Unit Fixing Screw Ring</p> <p>42: Lock Ring Tool for X-2 Finder Unit</p> <p>43: X-2 Main O-ring 175 (spare)</p>
	 	<p>44</p> <p>45</p> <p>46</p> <p>47</p> <p>48</p>	<p>44: Fiber Optics Fixing Rubber (spare)</p> <p>45: Allen Wrench 1.5mm</p> <p>46: Allen Wrench 2.5mm</p> <p>47: Allen Wrench 3mm</p> <p>48: INON Grease</p>

Parts Description

● Camera, Lens Control

- 1: Shutter lever
- 3: Main Dial
- 6: Flash button lever
- 11: Power switch lever
- 16: AF mode selection button
- 17: Drive mode selection button
- 18: ISO speed setting button
- 19: Metering mode selection button
- 21: Live View shooting/Movie shooting switch lever
- 22: Start/Stop button
- 23: AF start button lever
- 24: AF point selection/Magnify button
- 25: AE lock/FE lock button/Index/Reduce button
- 26: Quick Control Dial
- 27: Erase button
- 28: Setting button
- 29: Playback button
- 30: Quick Control button
- 32: Info button
- 33: Menu button

Access to buttons/dials/switches on the camera to operate. Refer to camera user manual for detail of respective button/dial/switch function etc.

2: Shutter Lock switch

Lock the shutter lever to prevent unexpected half-press/fully depressed shutter operation. It is recommended to lock the shutter lever during transportation, when setting a camera and whenever not taking an image.

7: Zoom/Focus knob

40: Crown gear

In combination with optional gear attached on a lens, manual focusing operation for compatible single focus lens or zooming operation for compatible zoom lens is usable. If you need to adjust engagement of gears, refer to [Handling Precautions/Maintenance — Trouble Shooting — When the Zoom/Focus knob freezes] (P.35)

12: Mode dial

Control camera's mode dial. Turn the Mode Dial while lightly holding down the Mode Dial lock-release button at the center.

15: Flash stow lever

Manually retract the built-in flash. Operate the lever slowly not to exert excessive pressure to prevent accidental damage on the built-in flash.

● Viewfinder, Display

13: Viewfinder

Your housing has a viewfinder unit which you have ordered. Refer to user manual of the viewfinder for detail.

20: LCD panel window

31: LCD Monitor window

Transparent window to see camera's LCD monitor and display panel.

14: Leak Sensor LED

36: Leak Sensor

39: Leak Sensor Buzzer

A red LED and buzzer provides visible/audible warning when the sensor detects flooding and *flashing/beeping* will become short intervals if the flooding gets heavier. Optional 1 x CR2032 battery is required.

The sensor is located at the bottom of the housing and may not work in case the flooding does not reach to the sensor.

● Strobe Control

5: Double Optical D Connector

Connects compatible external strobe via optional Optical D Cable Type L. Refer to [Preparation for shooting — Necessary Products for Underwater Photography — Using Strobe] (P.20), and [Preparation of Strobe Shooting — Attaching Double Optical D Connector / Optical D Cable Type L] (P.33).

● Arm System Connection

4: Base Adapter Fixing Screw Hole (M6)

Accepts optional Multi Direct Base II a, Multi Direct Base II WB, M6 Plate Direct Base III, Shoe Base Adapter X-2, Direct Base III or Direct Base YS RT to utilize high-performance and wide variety of INON arm system for the X-2 housing.

35: Holder II Spacer Screw Hole (M4)

Optional Holder II is attached via optional X-2 Holder II Spacer without using optional Main Base II to support back of right hand when holding the housing.

37: Main Base II Screw Hole (1/4 Tripod Screw)

Accepts optional Main Base II. Attaching optional Main Base II utilizes INON system base including Holder II, Grip Bar III Set or W Base II.

● Others

8: Port Bezel

Fix various type of lens port on the housing.

9: Corrosion Suppression Unit

This unit rusts to prevent the X-2 housing from oxidizing. The unit will get small as it rusts, so re-tighten by supplied Allen Wrench (L) as necessary.

10: Compression Latch

Interlocks the front body and rear body. Press down the lock lever to open the housing body. The Compression Latch automatically in lock position after closure.

34: Camera Stay

38: Tripod Screw

Fix a camera on the housing.

● Accessories

41: Finder Unit Fixing Screw Ring

42: Lock Ring Tool for X-2 Finder Unit

Dedicated tool to re-tighten pre-installed "viewfinder unit" or exchange with optional viewfinder unit. Refer to respective instruction manual for detail of using this tool including how to change pre-installed viewfinder unit.

43: X-2 Main O-ring 175 (spare)

48: INON Grease

For maintenance and installing the Double Optical D Connector. Refer to [Measures to Prevent Accidental Flooding] (P.3) and [Handling Precautions/Maintenance — After Use Maintenance] (P.36) for detail.

44: Fiber Optics Fixing Rubber (spare)

45: Allen Wrench 1.5mm

This wrench is to use for adjustment of engagement between the crown gear and gear attached on a lens. Refer to [Handling Precautions/Maintenance — Trouble Shooting — When the Zoom/Focus knob freezes] (P.35) for detail.

46: Allen Wrench 2.5mm

For dismounting/re-tightening the Double Optical D connector. Refer to [Preparation of Strobe Shooting — Attaching Double Optical D Connector / Optical D Cable Type L] (P.33).

47: Allen Wrench 3mm

For dismounting/re-tightening the Corrosion Suppression Unit. Refer to [Handling Precautions/Maintenance — Trouble Shooting — When Corrosion Suppression Unit gets small and loosens] (P.38).

Necessary Products for Underwater Photography (sold separately)

● **Camera**

Your X-2 for EOS70D is compatible with Canon EOS 70D but no other make, model is compatible.



● **Lens, Port, Extension Ring and Magnet Ring**

It is necessary to prepare *lens, compatible lens port (and Extension Ring if your lens requires)*. Refer to the compatibility chart on next page to prepare necessary equipment.

- Compatible **Gear/Magnet Ring** is necessary as well if you use manual focusing with fixed focal length lens, or zooming with zoom lens. Prepare necessary **Gear/Magnet Ring** according to the compatibility chart on the next page.
- When you use a macro lens together with a teleconverter/extender, compatible **Extension Ring** is required. Please refer to compatibility chart on P.17 to prepare necessary Extension Ring.



Lens Compatibility(current model)

Canon Zoom Lens	Compatible Port/Extension Ring	Compatible Gear/MRS Ring
EF8-15mm F4L Fisheye USM	Dome Port 2+Shade 2 Set ^{*8} + Extension Ring 18 Dome Port 115 ^{*8} + Extension Ring 18	Zoom Gear 8-15 (come with Shade Sponge D80 ^{*8})
EF-S10-18mm F4.5-5.6 IS STM ^{*4}	Dome Port 2+Shade 2 Set ^{*8} + Extension Ring 36 Dome Port 115 ^{*8} + Extension Ring 36	Zoom Gear EFS10-18STM (come with Shade Sponge D80 ^{*8})
EF16-35mm F4L IS USM ^{*4}	Dome Port 2+Shade 2 Set + Extension Ring M + Extension Ring 36 Dome Port 115 Extension Ring M + Extension Ring 36	Zoom Gear EF16-35F4L
EF-S18-55mm F3.5-5.6 IS STM ^{*4}	MF Standard Port 2 (w/o control ring)	Zoom Gear EFS18-55STM
EF-S18-55mm F3.5-5.6 IS II ^{*4}	MF Standard Port 2 (w/o control ring)	Zoom Gear 18-55 II

Tokina Zoom Lens	Compatible Port/Extension Ring	Compatible Gear/MRS Ring
AT-X 107 DX Fisheye	Dome Port 2+Shade 2 Set ^{*6} + Extension Ring S	Zoom Gear AT-X107 (come with Shade Sponge D70 ^{*6})
AT-X 107 NH Fisheye hood removed	Dome Port 2+Shade 2 Set ^{*6} + Extension Ring S	
	Dome Port 115 ^{*6} + Extension Ring S	

Canon Single Focal Lens	Compatible Port/Extension Ring	Compatible Gear/MRS Ring
EF20mm F2.8 USM ^{*1}	Dome Port 2+Shade 2 Set + MF EXT. Ring M (w/o control ring) ^{*2} MF Wide Port (w/o control ring)	Focus Gear 20-100

SIGMA Single Focal Lens	Compatible Port/Extension Ring	Compatible Gear/MRS Ring
10mm F2.8 EX DC FISHEYE HSM	Dome Port 2+Shade 2 Set + Extension Ring S + Shade Sponge 7mm ^{*7}	N/A

Canon Macro Lens	Compatible Port/Extension Ring	Compatible Gear/MRS Ring
EF-S35mm F2.8 Macro IS STM	Pancake Port + Extension Ring 18	Focus Gear EFS35STM
EF-S60mm F2.8 Macro USM	MRS60 Port	MRS Magnet Ring 60 Set (Set of MRS Magnet Ring and MRS Magnet Ring 60 Adapter)
	MRS60 Port II	
	MRS60 Port (w/o control ring) ^{*3}	N/A
	MRS60 Port II (w/o control ring) ^{*3}	
EF100mm F2.8L Macro IS USM	MRS100 Port Type U III	MRS Magnet Ring
	MRS100 Port Type U III (w/o control ring) ^{*3}	N/A
	MRS100 Port Type U II + Extension Ring S	MRS Magnet Ring
	MRS100 Port Type U II (w/o control ring) ^{*3} + Extension Ring S	N/A
EF100mm F2.8 Macro USM	MRS100 Port Type U II	MRS Magnet Ring
	MRS100 Port Type U II (w/o control ring) ^{*3}	N/A
EF180mm F3.5L Macro USM	MRS100 Port Type S + Extension Ring M	MRS Magnet Ring

Lnes Compatibility(discontinued model)

Canon Zoom Lens	Compatible Port/Extension Ring	Compatible Gear/MRS Ring
EF16-35mm F2.8L II USM ^{*4}	Dome Port 2+Shade 2 Set + Extension Ring M + Extension Ring 36 Dome Port 115 Extension Ring M + Extension Ring 36	Zoom Gear 8-15
EF-S18-55mm F3.5-5.6 II USM ^{*4}	MF Standard Port 2 (w/o control ring)	Zoom Gear 18-55 II
EF-S18-55mm F3.5-5.6 IS ^{*4}		Zoom Gear 18-55 II
EF20-35mm F3.5-4.5 USM ^{*1}	MF Wide Port (w/o control ring)	Focus Gear 20-100 ^{*5}
EF22-55mm F4-5.6 USM	MF Wide Port (w/o control ring)	Zoom Gear 28-90USM
EF28-80mm F3.5-5.6 II USM	MF Standard Port 2 (w/o control ring)	
EF28-80mm F3.5-5.6 III USM		
EF28-80mm F3.5-5.6 IV USM		
EF28-80mm F3.5-5.6 V USM		
EF28-90mm F4-5.6 USM		
EF35-80mm F4-5.6 USM		

Canon Single Focal Lens	Compatible Port/Extension Ring	Compatible Gear/MRS Ring
EF15mm F2.8 Fisheye	Dome Port 2+Shade 2 Set	Focus Gear 15-50
EF24mm F2.8 ^{*9}	MF Flat Port (w/o control ring)	Focus Gear 15-50
EF28mm F2.8 ^{*1 *9}		
EF35mm F2.8 ^{*9}		

Canon Macro Lens	Compatible Port/Extension Ring	Compatible Gear/MRS Ring
EF50mm F2.5 Compact Macro	MF Std. Port II (w/o control ring)	Focus Gear 15-50
EF100mm F2.8 Macro ^{*9}	MRS100 Port Type S	MRS Magnet Ring 100S Set (Set of MRS Magnet Ring and MRS Magnet Ring 100S Adapter)

Telconverter/Extender Compatibility(current model)

Kenko Teleconverter	Compatible Lens	Required Extension Ring
TELEPLUS HD DGX 1.4X Canon EOS	EF-S60mm F2.8 Macro USM	Extension Ring 18
	EF100mm F2.8L Macro IS USM	
	EF100mm F2.8 Macro USM	
	EF180mm F3.5L Macro USM	
TELEPLUS HD DGX 2.0X Canon EOS	EF-S60mm F2.8 Macro USM	Extension Ring 36
	EF100mm F2.8L Macro IS USM	
	EF100mm F2.8 Macro USM	
	EF180mm F3.5L Macro USM	

Telconverter/Extender Compatibility(discontinued model)

Kenko Teleconverter	Compatible Lens	Required Extension Ring
TelePlus MC7 AF 2.0X DGX for Canon EOS	EF100mm F2.8L Macro IS USM	Extension Ring 36
	EF100mm F2.8 Macro USM	
	EF100mm F2.8 Macro ⁹	
	EF180mm F3.5L Macro USM	
1.5X Teleplus MC4 DG for Canon EOS	EF100mm F2.8 Macro USM	Extension Ring 18
	EF100mm F2.8 Macro ⁹	
	EF180mm F3.5L Macro USM	
2X Teleplus MC7 DG for Canon EOS	EF100mm F2.8 Macro USM	Extension Ring 36
	EF100mm F2.8 Macro ⁹	
	EF180mm F3.5L Macro USM	
3XM Teleplus PRO 300 for Canon EOS	EF100mm F2.8 Macro USM	Extension Ring L
	EF100mm F2.8 Macro ⁹	
	EF180mm F3.5L Macro USM	
1.5X Teleplus SHQ for Canon EOS	EF100mm F2.8 Macro USM	Extension Ring 18
	EF100mm F2.8 Macro ⁹	
	EF180mm F3.5L Macro USM	
2X Teleplus MC7 for Canon EOS	EF100mm F2.8 Macro USM	Extension Ring 36
	EF100mm F2.8 Macro ⁹	
	EF180mm F3.5L Macro USM	

Canon Extender	Compatible Lens	Compatible Port /Extension Ring
EXTENDER EF1.4x	EF180mm F3.5L Macro USM	MRS100 Port Type S + Extension Ring 58
EXTENDER EF2x	EF180mm F3.5L Macro USM	MRS100 Port Type S + Extension Ring 81

- * 1 When shooting with wider aperture setting, image quality may degrade on peripheral part. Use smaller aperture setting.
- * 2 Minimum focus distance gets little bit longer. Commercially available close-up lens No.2 like "Canon Close-up Lens 500D/72mm" etc. would be recommended to attach on lens front to compensate it.
- * 3 Auto focus (AF) only. For manual focus operation, optional "MRS Control Ring 60/60II /100U II /100U III /50 for Olympus" and compatible "Magnet Ring" is necessary.
- * 4 When shooting with zoom wide end with wider aperture setting, peripheral part of an image may get degraded. Use smaller aperture setting.
- * 5 Supports zoom operation. Manual focus (MF) is not supported and only auto focus shooting is available.
- * 6 "Shade Sponge D70" is attached on inner side of the Dome Port 2 or Dome Port 115 to block built-in flash light to prevent the flash light from exposing on an image. The optional "Zoom Gear AT-X107" to control zooming, comes with a Shade Sponge D70.
- * 7 "Shade Sponge 7mm" is attached on inner side of the Extension Ring S to block built-in flash light to prevent the flash light from exposing on an image.
- * 8 "Shade Sponge D80" is attached on inner side of the Dome Port 2 or Dome Port 115 to block built-in flash light to prevent the flash light from exposing on an image. The optional "Zoom Gear 8-15" / "Zoom Gear EFS10-18STM" to control zooming, comes with a Shade Sponge D80.
- * 9 Non USM old style lens.

"MF Port" series ("MF Standard Port 2"/"MF Wide Port"/"MF Flat Port") or "MF EXT. Ring M" can not be attached on "Extension Ring" other than "MF EXT. Ring M".

● Using Strobe

• Strobe and Optical Connection System

INON X-2 for EOS70D is compatible with ***INON Z-330, D-200, S-2000, Z-240, D-2000 series, D-180 series, Z-220 series, Z-22***.

Prepare necessary fiber optics cable and optional products according to the chart below. The X-2 for EOS70D housing supports flexible optical connection system and can have maximum four external strobes directly connected via optical cable.

For compatible flash mode/performance of each strobe, please see respective strobe's user manual.

Strobe Compatibility Chart

Compatible Strobe INON	Compatible Connection Cable (per one strobe)	Necessary Options (per one strobe)
Z-330	Optical D Cable Type L Optical D Cable L Type L Optical D Cable LL Type L Optical D Cable SS Type L	(Not necessary)
D-200		
S-2000		
Z-240		
D-2000 series		
D-180 series		
Z-220 series		
Z-220 series		
Z-22	Focus Light Controller	

• Arm System

INON offers various type of arm system depending on your strobe and shooting style. Prepare optional arm products as necessary.

Standard X-2 for EOS70D can have arm system to attach single strobe/LED flashlight as in the right image as well as other arm system to install two or more strobes.

Refer to [Reference — Accessory] (P.39~) for basic arm system configuration.



Lens/Camera Preparation

● Setting Lens (Magnet Ring/Gear installation)

Depending on lens type and focus mode, focus mode setting (AF/MF button) and necessary Magnet Ring will be differ.

First, *check your lens type*.

Next, refer to the Lens Setting Chart below to see

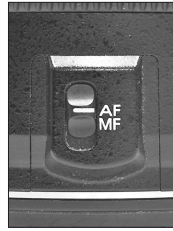
- ① Focus mode setting (AF/MF button) of the lens
- ② Necessity of compatible Magnet Ring

Refer to Lens Compatibility Chart (P.17) in [Preparation for shooting — Necessary Product for Underwater Photography] section for detail of compatible Magnet Ring for your lens.

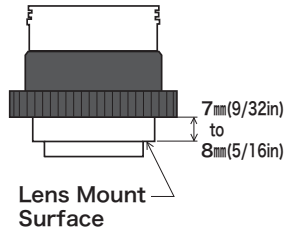
Lens Setting Chart

Lens	Focus Mode	
	Manual Focus/ Full-time manual focus	Auto Focus
Canon fixed focal lens EF20mm F2.8 USM EF-S35mm F2.8 Macro IS STM EF-S60mm F2.8 Macro USM EF100mm F2.8L Macro IS USM EF100mm F2.8 Macro USM EF180mm F3.5L Macro USM	<ul style="list-style-type: none"> ● Focus mode switch : MF Full-time manual focus : AF ● Compatible Gear/Magnet Ring : Necessary 	<ul style="list-style-type: none"> ● Focus mode switch : AF ● Compatible Gear/Magnet Ring : Not Necessary
Compatible Canon fixed focal lens except above	<ul style="list-style-type: none"> ● Focus mode switch : MF ● Compatible Gear/Magnet Ring : Necessary 	<ul style="list-style-type: none"> ● Focus mode switch : AF ● Compatible Gear/Magnet Ring : Do not install
Sigma 10mm F2.8 EX DC FISHEYE HSM	<i>(Manual focus is not usable)</i>	<ul style="list-style-type: none"> ● Focus mode switch : AF
All compatible zoom lens	<i>(Manual focus is not usable)</i>	<ul style="list-style-type: none"> ● Focus mode switch : AF ● Compatible Gear is necessary for zooming operation

- 1 Set lens focus mode to [AF] or [MF] according to the lens to use and intended focus mode. Make the lens barrel to the minimum extension.



- 2 When you use a gear, put it at about 7mm (9/32in) to 8mm (5/16in) away from lens mount surface and make sure to attach it on a lens upright. Inclined gear installation will cause difficulty or rattle when operating the lens.

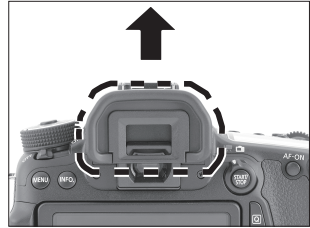


- 3 When using MRS Port, refer to respective user manual to install compatible Magnet Ring.

● Setting Camera

1 Prepare your camera according to the instruction manual [1 Getting Started].

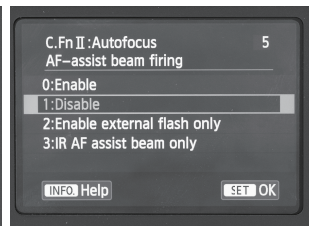
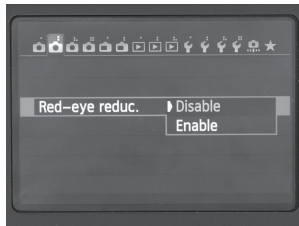
2 Make sure to remove the pre-installed eyecup on the camera's viewfinder. ***If the eyecup being attached and housed in the X-2 housing, it could cause accidental flooding.***



3 **When using Pick-up Finder 2:** Attach Pick-up Finder Unit 2(camera side module) on camera's viewfinder. Refer to instruction manual of the Pick-up Finder 2 for detail.



4 Make sure to disable red-eye reduction and AF-assist beam since they may interfere underwater shooting. Refer to camera user manual how to deactivate those functions.



5 Retract the built-in flash.

6 Turn OFF the camera.



Make sure to remove pre-installed eye-cup of the camera to avoid accidental flooding and/or malfunction of camera before installing the camera in the X-2 housing.

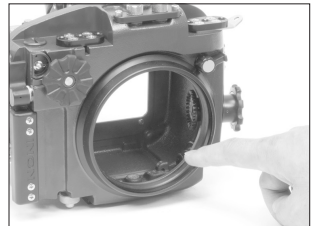
Housing Preparation

● Attaching Port/MRS Control Ring

- 1 **Check condition of Port O-Ring and O-Ring groove** to make sure they do not have any irregularity. Then apply a little extra grease on the O-Ring.



- 2 **Check O-Ring contact surface of the housing** to make sure there is no problem. Then apply grease on the O-Ring contact surface.



- 3 **Slowly** screw the Port clockwise on the housing and tighten completely. Screwing too quickly may damage the O-Ring. Do not tighten the Port too much to avoid the Port being stuck.

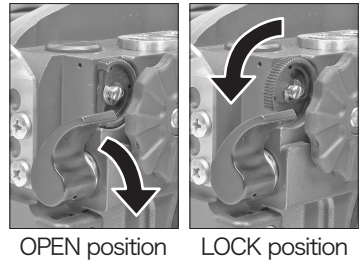


- 4 When using the MRS Base Port, attach respective Front Port and MRS Control Ring according to Front Port user manual "**after**" installing a camera in the housing in reference to the instruction from next page.

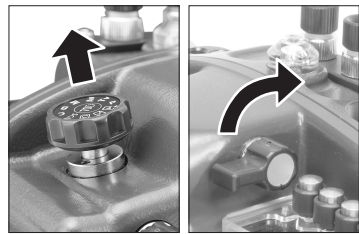
Installing Camera in Housing

● Open Housing

- 1 Check the Shutter Lock Switch is in OPEN position, then push the shutter lever forward and set the Shutter Lock Switch to LOCK position.



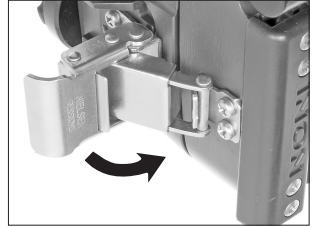
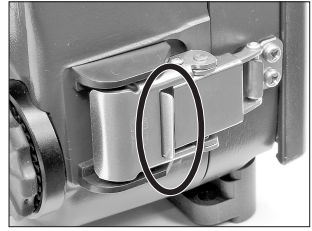
- 2 If a camera has been already installed in the X-2 housing, pull up the Mode Dial and retract the built-in flash unit by slowly operating the Strobe Retract Lever.



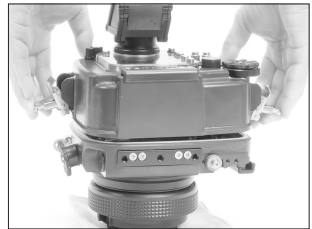
- 3 Place the housing on flat area keeping the Port side down. Make sure to place a towel between the port and the flat area to protect the Port Lens.



- 4 With holding down the Rear Body, unlock Compression Latches (one at a time) by pushing their lock levers.



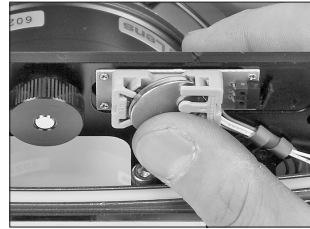
- 5 Unlatch Compression Latches from the Front Body and lift the Rear Body upward. Make sure to put the Rear Body keeping O-Ring Contact Surface up not to damage the O-Ring Contact Surface.



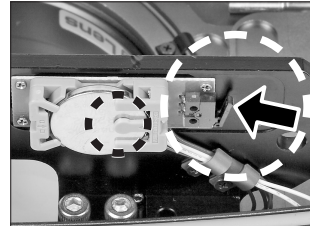
- *DO NOT open/close the housing in the area exposing to sea breeze like beach area. If you have to open/close the housing by necessity, first well rinse the housing with fresh water and dry it completely before opening.*
- *When opening/closing in humid area or with housing being wet, condensation may form underwater to cause fogging inside of Port Lens.*

● Setting Battery

- 1 Set lithium battery (CR2032) in the Leak Sensor so that you can see + (positive) terminal. DO NOT load battery with the +/- terminal reversed. When removing the battery, press the part indicated by black circle in the image below.



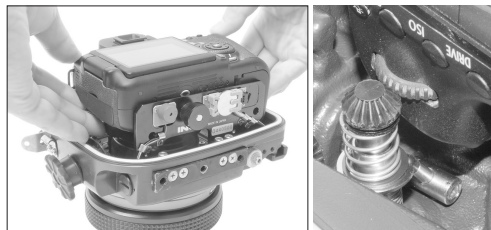
- 2 Press the Leak Sensor Check Switch (indicated by the arrow in the image right) to check functionality of the Leak Sensor/capacity of the battery. Intermittent activation of the buzzer/LED shows proper operation of the sensor and battery.



● Installing Camera

- 1 Check the Shutter Lock Switch on the housing is in LOCK position. Make sure that the lens is in minimum extension.

- 2 Set the camera in the housing. Slide the camera forward on a camera stay of the housing with the center of the lens port and center of the lens being aligned ***until you hear clicking where the***

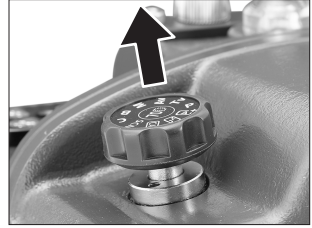


1/4 Tripod Screw has been seated in the tripod socket of the camera. Check that the Shutter Release Lever of the housing does not obstruct the camera and a rubber dial of the housing Main Dial engages camera's Main Dial as shown in the right image. Then fasten the 1/4 Tripod Screw to fix the camera in the housing. Finally turn housing Main Dial to confirm camera's Main Dial moves simultaneously.

- 3 Make sure to turn **OFF** the camera.

● Close Housing

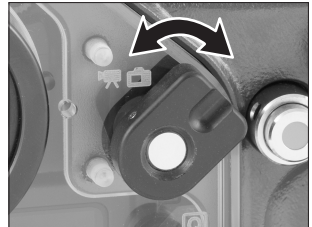
1 Pull up the Mode Dial on the rear body.



2 Turn the Power switch lever to OFF position.



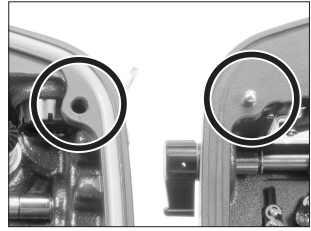
3 Align the Live View shooting/Movie shooting switch lever with camera's switch lever.



4 Check O-Ring Contact Surface of the Rear Body if there is ***no damage, no foreign particles or waterdrops*** on it and the Main O-Ring on the Front Body if there is ***no irregularity like damage, twist or no foreign particles or waterdrops*** on it



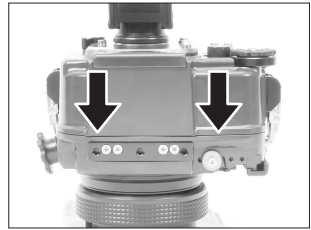
- 5 Place the Rear Body on the Front Body so that two positioning pins on the Rear Body seat in positioning holes of the Front Body. Make sure to match positioning pins and positioning holes precisely or those pins could damage O-Ring contact surface of the Rear Body. ***Do not sandwich anything like a double ring which is used to attach third party carry belt etc.***



- 6 Latch Compression Latches on hooks of the Front Body and ***lock both latches at a time***. Make sure that lock levers of latches are in lock position.



- 7 Check that there is no gap greater than 0.2mm between the rear body and front body. In case you see such a gap, set them again until no such gap is observed.



Function Check

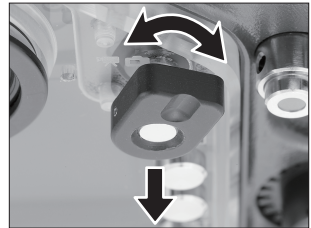
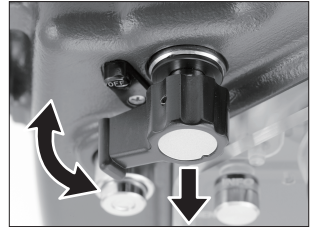
● Checking Camera/Lens Control

Operates all controls (dials/levers/buttons/switches) to check if camera is operated properly.

If the Power switch lever or the Live View shooting/Movie shooting switch lever is misaligned, pull the lever to align with camera's switch then push it to engage.

On land, the Mode Dial, Power switch lever and Live View shooting/Movie shooting switch lever need to be lightly depressed to operate.

If the Zoom/Focus Dial is stuck or it does not engage gear, conduct adjustment according to [Handling Precautions Maintenance — Trouble Shooting — When the Zoom/Focus knob freezes] (P.37)



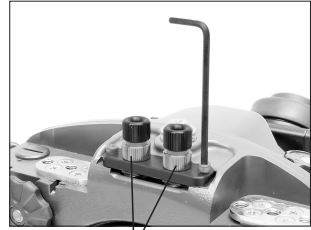
● Post Check Procedure

After you have done all function check, set the Shutter Lock Switch in LOCK position. Turn the Power switch lever to OFF to turn OFF the camera.

Preparation of Strobe Shooting

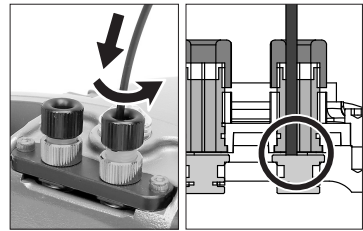
● Attaching Double Optical D Connector / Optical D Cable Type L

- 1 Put grease on Double Optical D Connector Screws and fix the Double Optical D Connector on the housing by using supplied Allen Wrench 2.5mm . Tighten Cap Fixing Dials (silver nut) completely if they have not sufficiently tightened.

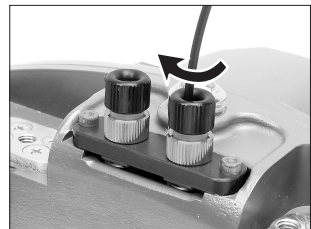


Cap Fixing Dial

- 2 Unscrew the Fiber Optics Fixing Dial (black) and insert bear end of the Optical D Cable Type L into the right or left hole of Fiber Optics Fixing Rubber until the bear end stops at Optical D Connector Window (as shown in black circle in the right image).



- 3 Tighten the Fiber Optics Fixing Dial until the Optical D Cable Type L is securely fastened. Single Fiber Optics Fixing Rubber can have maximum two Optical D Cables. So maximum four Optical D Cables can be attached on the Double Optical D Connector.



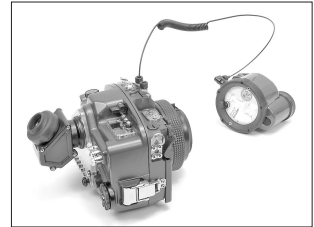
- 4 Attach other end of the Optical D Cable Type L to compatible external strobe. Refer to respective strobe user manual for detail.

● Setting Camera

Make sure to deactivate AF Assist Lamp and activate the built-in flash. For detail, refer to respective camera's user manual.

● Functional Check of External Strobe

- 1 Connect using external strobe to the housing according to respective user manual and make it ready to use.



- 2 Pop up the built-in flash by the Strobe Lever and take sample shot to check if the external strobe properly works.

- *External strobe attached on the X-2 housing is controlled under INON Optical Connection System and usable flash mode of the external strobe depends on performance of optical connection compatible external strobe and camera.*
- *Compatible flash mode is **S-TTL Auto**, **External Auto** and **Manual**. For detail of usable flash mode for each compatible strobe, operational limitation and necessary optional parts, refer to respective user manual of strobe.*

Handling Precautions/Maintenance

Handling Precautions

● Protect from shock and/or vibration

The INON X-2 housing is precisely calibrated. ***Protect from impact shock and vibration, such as vibrating boat deck, accidental dropping or hitting on something.*** When transporting INON X-2 housing, wrap with a thick towel etc. to protect from shock. Even if there is no externally visible damage, shock and vibration may loosen or deform parts, preventing normal operation, or causing water leakage. If you suspect any damage do not use housing and have it checked.

● Do not leave in area of high temperature

Do not expose the X-2 housing to extreme heat, such as inside of a sun-heated car, or in hot direct sunlight, such as a beach or boat deck. Doing so may cause deformation, damage and subsequent flooding.

● Do not disassemble

Your INON X-2 housing has been assembled precisely. ***Never disassemble or attempt to self-repair the INON X-2 housing.*** Disassembling could lead to severe malfunction or flooding. If you think the housing is in need of repair, always contact your purchasing dealer. INON and its agents assume no responsibility for any damages for any unauthorized disassembly, repair or modification.

● Do not dive into water with the housing

Diving into water with housing/strobe may lead to accidental trouble due to impact shock. In case of boat diving, ask somebody else to hand your equipment after entry or take them down with a rope before entry.

● Do not close housing before changes in air pressure

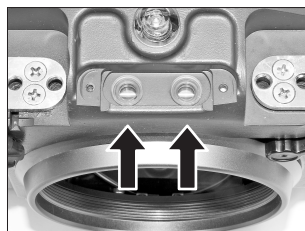
The INON X-2 is designed to withstand external pressure (water pressure), but not internal pressure (when ambient air pressure decreases). When traveling to or from high altitudes, ***including travel on aircraft, always dismount the port.*** Attaching optional ***Body Cap, MF Rear Port Cap*** prevents O-Ring and O-Ring Contact Surface from accidental damage. Refer to [Reference — Accessory] (P.39) for detail.

● Prevent water from entering housing

Avoid opening/closing housing or mounting/dismounting port in areas of high humidity or places to get wet. If this is not possible, before opening, make sure to thoroughly **wash X-2 in fresh water and completely wipe dry** so no water enters. When opening/closing in humid area or with housing being wet, condensation may form underwater to cause fogging inside of lens port.

After Use Maintenance

After using housing underwater, first rinse and then soak in fresh water, for several hours, to dissolve any salt build-up. The water temperature should be no higher than ambient temperature. Do not immerse the housing into hot water. When soaking in fresh water, slowly operate the dials, levers and buttons to work out any salt or sand trapped in the gaps. Especially well rinse Double Optical D Connector Window after dismounting the Double Optical D Connector. The window may have fogging by salt build-up leading to poor optical signal transmission. After soaking, do not leave in direct sunlight. First, thoroughly towel dry. Then place in shaded, well ventilated area. It may take several days for moisture in the small gaps and recesses of the housing to completely dry. After completely dry, check every O-Ring and apply grease on them.



Storage

Always remove battery and close housing. Store out of direct sunlight in well-ventilated, dry area. Avoid storing near chemicals, high ozone, large temperature and humidity fluctuations. It is recommended to put a moisture absorbent desiccant pack in the housing during storage.

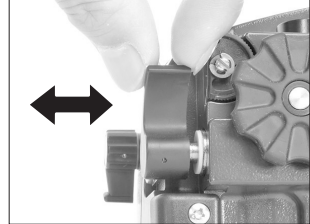
Battery (for the model with optional leak sensor)

The leak sensor is operated by 1 x CR2032. Replace the battery as necessary according to [Preparation for shooting — Installing Camera in Housing — Setting Battery] (P.27) to work the leak sensor. The battery life time may vary depending on use conditions. Please make sure to check the leak sensor operation by leak sensor switch before every diving and make sure to use a battery with sufficient life time to avoid sudden inoperative of the leak sensor during diving. Always remove the battery when the housing is not in use.

Trouble Shooting

● When the Shutter Lever, Main Dial, Mode Dial, Flash button lever, Flash stow lever, Power switch lever, AF start button lever, Live View shooting/Movie shooting switch lever freezes

After dismounting the camera, axially pull out/push in levers/dials several times to spread grease on their axes. If you still have problem of levers/dials, contact your purchasing dealer for servicing.



● When the Zoom/Focus knob freezes

First, check that the Focus Gear/Zoom Gear has been installed properly according to [Preparation for shooting — Lens/Camera Preparationz] (P.23) and the lens standalone works smoothly in its manual focusing/zooming operation.



Then dismount the camera and axially pull out/push in the knob several times to spread grease on its axle.

If this does not improve the situation, adjust the crown gear position by supplied Allen Wrench 1.5mm to have slight gap between the crown gear and the Focus Gear/Zoom Gear with the Zoom/Focus Dial being pushed, and it operates smoothly.

If you still have problem, contact your purchasing dealer for servicing.

● When the Quick Control Dial freezes

Dismount the camera and axially pull out/push in the intermediate gear several times to spread grease.

If this does not improve the situation, take out foreign substances from engagement part of the gear in running fresh water or by compressed air

If you still have problem, contact your purchasing dealer for servicing.



● When Corrosion Suppression Unit gets small and loosens

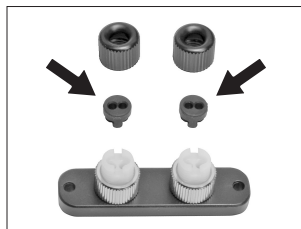
Tighten the unit by supplied Allen Wrench 3mm .

Replace with new unit if the pre-installed unit gets too small to re-tighten. Refer to 「Reference — Accessory」 (P.39) for detail.



● When Optical D Cable fixture gets loosen

Replace Fiber Optics Fixing Rubber(s) with supplied Spare Fiber Optics Fixing Rubber(s). Make sure not to lose component parts of the Double Optical D Connector during replacement.



Overhaul

This product is designed and manufactured for use in severe conditions. Before shipping, all housings are pressure tested in water and fully checked for proper function. To ensure your X-2 housing maintains optimum performance, in addition to the pre and post dive handling recommendations, maintenance procedures, and recommended storage conditions, it is also necessary that *the housing receive periodic overhaul* at INON, or an INON authorized service facility for following:

- O-Ring and other wearable parts - inspection and replacement.
- Other parts inspection and test of controls.

INON can conduct overhaul and any time based on specific instructions from user, but in general INON recommends *overhaul once per year*.

The overhaul includes;

- ① Disassembly, inspection, cleaning
- ② Replace all O-Rings
- ③ Test all controls, moving parts
- ④ Pressure test

Reference

Accessory(sold separately)

Optional accessories and spare parts including "optical cable" products to use a strobe and "arm" products to attach a strobe on this product.

● Optical D Cable Type L (image right)

Optical D Cable SS Type L

Optical D Cable L Type L

Optical D Cable LL Type L

Fiber optics products to connect the X-2 housing and compatible strobe via Double Optical D Connector. Three different length to choose; "Optical D Cable Type L" with free length approx. 43 cm /17in, "SS" with free length approx. 24cm /9in, "L" with free length approx. 68cm /27in and "LL" with free length approx. 110cm /43.3in.



● Holder II Set

Arm base to attach a strobe on the X-2 housing. Firmly attached on a housing by 2x tripod screws. The holder supports back of the right hand to enhance holding strength of the housing.



● Holder II Grip Set

The Grip+Bar III Set is equipped on the left hand side of the Holder II Set, which is adjustable sideway supporting focusing / zooming operation with holding the grip. INON strobe arm system is attached on the Grip+Bar III Set.



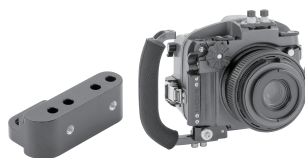
● Holder II

The Holder II comfortably supports the back of your right hand with pre-installed 10mm neoprene rubber when holding INON X-2 series housing and is slidingly adjustable to suits to different hand size. INON strobe arm system is directly attached on the Holder II .



● **X-2 Holder II Spacer**

The spacer to attach INON Holder II directly on the housing without "Main Base II " thus total weight is reduced. Left hand grip cannot be attached on this spacer.



● **Multi Direct Base II a**

A base adapter with a ball-joint to hold arm system for strobe or LED flashlight. The Multi Direct Base II a is directly attached on an INON housing or handle end of the "Holder II ".



● **Multi Direct Base II Long**

Long version of the Multi Direct Base.



● **Multi Direct Base II WB**

A Direct Base carrying double ball-joints to enable sophisticated lighting such as installing a strobe for a subject and a strobe for a back ground, or installing a strobe for still images and LED flashlight for footage, on each ball-joint.



● **Direct Base III**

A fundamental part to be attached on a base or housing to have arm system for strobe or LED flashlight installation. "M6 Plate Direct Base III " is required to install on "X-2 Lanyard Plate" or "Holder II ".



● **M6 Plate Direct Base III**

Necessary part when installing "Direct Base III " on "X-2 Lanyard Plate" or strobe arm base of "Holder II ".



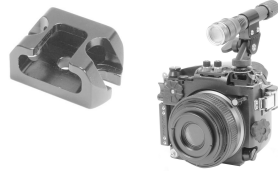
● Shoe Base II

Usable to create compact lighting system in combination with "Z Joint" or "Single Light Holder LE". The base part rotates 360-degree to support free and flexible strobe/LED flashlight aiming horizontally as well as vertically.



● Shoe Base Adapter X-2

Attached on the top of the X-2 housing to attach the "Shoe Base".



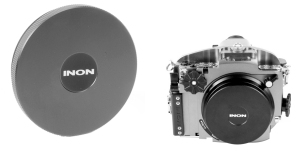
● Direct Base YS RT

A YS Mount compatible base adapter to hold/attach an LED light or strobe via "Single Light Holder LE", "Single Light Holder LF" or "Z Joint" to create simple and compact system. The YS Mount rotates 360 degree to benefit users with flexible aiming of combined lighting device..



● Housing Body Cap

The Housing Body Cap protects Port O-Ring contact surface during transportation or storage. Pressure relief construction to equalize pressure inside of the housing to the outer pressure is useful when travelling air.



● MF Rear Port Cap

Port O-Ring protection during transportation or storage. The MF Rear Port Cap is compatible with all INON ports. Pressure relief construction to equalize pressure inside of the port to the outer pressure is useful when travelling air.



● **X-2 Lanyard Plate**

Attaching this plate on a housing utilizes to use commercially available lanyard (carry belt). The plate is attached on the "Base Adapter Fixing Screw Hole (M6)" by screws or by compatible INON arm adapter. Supplied rubber grommet prevents uncomfortable clinking noise between this product and metal hook from recording when shooting video as well as scratching the housing body.



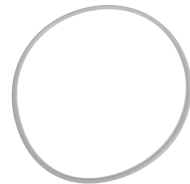
● **Corrosion Suppression Unit**

Optional replacement unit when pre-installed unit gets worn. The unit suppresses housing corrosion by oxidizing before the X-2 housing body gets rusted.



● **Main O-ring for X-2 Housing Body**

Spare oil-bearing INON yellow O-Ring for housing body.



● **O-ring for Port / Extension Ring**

Spare oil-bearing INON yellow O-Ring for Port or Extension Ring.



● **INON Grease**

Grease exclusively for oil bearing INON yellow O-Ring.



● **Lock Ring Tool for X-2 Housing**

Dedicated tool (same as packaged tool) to use when installing/removing a viewfinder unit.



● **45° Viewfinder Unit for X-2**

The 45°Viewfinder is an interchangeable finder unit to extend eye-point of camera's viewfinder without changing image size (x1.0) to see all finder image area even through a mask without vignetting.

The eye piece is at 45 degree angle to camera's optical axis which helps to shoot lower subject like a goby on seabed.

Also the eye piece is 360 degree rotatable making it easy to shoot vertical composition from low angle.



● **Straight Viewfinder Unit for X-2**

The Straight Viewfinder is an interchangeable finder unit to extend eyepoint of camera's viewfinder without changing image size (x1.0) to see all finder image area even through a mask without vignetting.

The eye piece is level to camera's optical axis to position camera/housing closer to a subject without changing your position.



● **Pick Up Finder Unit 2 for X-2**

The Pick-up Finder is a compact interchangeable finder unit to extend eyepoint and scale down image size (x0.75) to practically suppress vignetting to check composition even through a mask.



● **Finder Window Unit for X-2**

The Finder Window is most inexpensive interchangeable finder unit which consists of single waterproof window made of optical glass to access camera's finder. This unit does not have carry optical function like extending camera's eyepoint so only center part of camera's finder is visible through a mask.



Tips on Controlling Camera

With the INON X-2 for EOS70D housing, <AF area selection mode button>, <Multi-controller>, <Multi function lock switch> are not operable on the housing. Below section explains tips to overcome those operational limitations.

● Assign Frequently Used Function on the <Q> Quick Control

As the <Multi-controller> is not accessible on the housing, those features on the LCD display is not selectable by the controller. However before diving, once you have set frequently used function on the <Q> Quick Control button, the assigned function is controllable on the housing by pressing the <Q> button, then turning <Main Dial> or <Quick Control Dial>.

● Selecting AF area selection mode

Before diving, once you have selected [AF area selection mode] on the <Q> button, the <Q> button is used as the <AF area selection mode button>.

Underwater, you can select the AF area selection mode by pressing the <Q> button and dialing <Main Dial> / <Quick Control Dial>. Once you have selected intended AF area selection mode, you can press <AF point selection> button to confirm then change the AF point (or zone) by turning <Main Dial> and <Quick Control Dial>.

● Assign [Flash exposure compensation]to <SET> buton

When shooting with S-TTL Auto mode of INON Z-330/D-200/S-2000/Z-240/D-2000 strobe, you can adjust flash output by camera control as well. In [C.Fn III-4: Custom Controls] menu, you can assign [Flash exposure compensation] to <SET> button making it easier to adjust flash output on camera rather than getting in [External flash func. setting] under [2: Flash control].

● Face+Tracking AF when shooting video

Though [Face+Tracking] is an AF mode to detect a human face then keep focusing on it, it is usable for marine lives as well to keep focusing when shooting video. Selecting [Face+Tracking] with Movie Servo AF being [Enable], AF frame keeps tracking targeted object. (Not for every subjects). If tracking failed or change to another object, all the things you have to do is press <SET> button or <Erase> button when the target comes to center of the LCD display to start tracking again on the subject.

Specification

Compatible camera	CANON EOS 70D
Compatible lens	CANON EF15mm Fisheye ~ EF180mm Macro
Compatible strobe	INON Z-330/D-200/S-2000/Z-240/D-2000 series/D-180 series/Z-220 series
Accessible camera controls	Shutter button, Main Dial, Flash button, Power Switch, Mode Dial, AF mode selection button, Drive mode selection button, ISO speed setting button, Metering mode selection button, Live View shooting/Movie shooting switch, Start/Stop button, AF start button, AE lock/FE lock button/Index/Reduce button, AF point selection/Magnify button, Quick Control Dial, Quick Control button, Playback button, Setting button, Erase button, Menu button, Info button * AF area selection mode button, Multi-controller, and Multi function lock switch are not accessible.
Lens Control	Manual focus ring (single focal lens) Zoom ring (zoom lens)
INON Optical D Connector	2 (Accepts maximum 4 strobes. (2 strobes per connector))
Leak Sensor (buzzer/LED)	Battery/operation checker is equipped. 1 x CR2032 battery
Size(without Accessories)	W210mm /8.3in x H174mm /6.9in x D124mm /4.9in
Weight (air)	approx. 2,059g/72.6oz [45°Viewfinder model standalone] approx. 1,999g/70.5oz [Straight Viewfinder model standalone] approx. 1,756g/61.9oz [Pick-up Finder 2 model standalone] approx. 1,749g/61.7oz [Finder Window model standalone]
Depth Rating	75m/246' (with any INON Port)
Operable Temp. Range	0°C ~ +40°C / 32°F ~ 104°F
Material	Corrosion resistant aluminum alloy (Housing Body)
Color	Teflon molybdenum coating: Charcoal gray
Accessories	Finder Unit Fixing Screw Ring, Lock Ring Tool for X-2 Finder Unit, X-2 Main O-ring 175(spare), INON Grease, Fiber Optics Fixing Rubber (spare), Allen Wrench 1.5mm , Allen Wrench 2.5mm , Allen Wrench 3mm

Specifications/product design subject to change without prior notice.

Underwater Weight

Below table shows underwater weight of X-2 for EOS70D PF2 (Pick-up Finder 2 model).

X-2 for EOS70D FW (Finder Window model) is 8g(0.3oz) less than PF2.

X-2 for EOS70D 45VF (45°Viewfinder model) is 110g(3.9oz) more than PF2.

X-2 for EOS70D STVF (Straight Viewfinder model) is 80g (2.8oz) more than PF2.

Lens	Compatible Port/ Extension Ring	Compatible Magnet Ring	Underwater weight
EF8-15mm F4L Fisheye USM	Dome Port 2+Shade 2 Set + Extension Ring 18	Zoom Gear 8-15	approx.647g (22.8oz)
	Dome Port 115 + Extension Ring 18	Zoom Gear 8-15	approx.601g (21.2oz)
EF-S10-18mm F4.5-5.6 IS STM	Dome Port 2+Shade 2 Set + Extension Ring 36	Zoom Gear EFS10-18STM	approx.272g (9.6oz)
	Dome Port 2+Shade 2 Set + Extension Ring 36	Zoom Gear EFS10-18STM	approx.226g (8.0oz)
EF16-35mm F4L IS USM	Dome Port 2+Shade 2 Set + Extension Ring M + Extension Ring 36	Zoom Gear EF16-35F4L	approx.478g (16.8oz)
	Dome Port 115 + Extension Ring M + Extension Ring 36	Zoom Gear EF16-35F4L	approx.432g (15.2oz)
EF16-35mm F2.8L II USM	Dome Port 2+Shade 2 Set + Extension Ring M + Extension Ring 36	Zoom Gear 8-15	approx.495g (17.5oz)
	Dome Port 115 + Extension Ring M + Extension Ring 36	Zoom Gear 8-15	approx.449g (15.8oz)
EF-S18-55mm F3.5-5.6 IS STM	MF Standard Port 2 (w/o control ring)	Zoom Gear EFS18-55STM	approx.221g (7.8oz)
Tokina AT-X 107 DX Fisheye	Dome Port 2+Shade 2 Set + Extension Ring S	Zoom Gear AT-X107	approx.497g (17.5oz)
Tokina AT-X 107 NH Fisheye hood removed	Dome Port 115 + Extension Ring S	Zoom Gear AT-X107	approx.449g (15.8oz)
EF-S35mm F2.8 Macro IS STM	Pancake Port + Extension Ring 18	Focus Gear EFS35STM	approx.320g (11.3oz)
EF-S60mm F2.8 Macro USM	MRS60 Port II	MRS Magnet Ring 60 Set	approx.459g (16.2oz)
	MRS60 Port II (w/o control ring)	—	approx.331g (11.7oz)
EF100mm F2.8L Macro IS USM	MRS100 Port Type U III	MRS Magnet Ring	approx.463g (16.3oz)
EF100mm F2.8 Macro USM	MRS100 Port Type U II	MRS Magnet Ring	approx.466g (16.4oz)

Underwater weight data measured in freshwater (density = 1) using a housing with a camera/lens/batteries/
memory card. Individual difference of product or measurement condition may have different underwater weight.

After Service

● To inquire about this product

Please contact your authorized INON dealer for any questions about this product.

● To request product inspection, check-up and repair

Please contact your authorized INON dealer for referral to an INON authorized service facility, or contact that facility directly.

● Product Warranty

X-2 for EOS70D sold by authorized overseas distributor/dealer carries Limited Warranty provided by the distributor/dealer.

Warranty repair will be provided according to the warranty terms and conditions.

In principle, repair service is not free of charge after the warranty period has expired.

Customer is required to bear shipping costs to and from INON's designated repair facility.

Please contact your authorized INON distributor/dealer for warranty service or warranty condition.

● Manufacturer

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Update history	
• Ver.1.0.1	2015.05.27
• Ver.1.0.2	2015.06.01
• Ver.1.0.3	2015.06.30
• Ver.1.0.4	2015.08.04
• Ver.1.0.5	2016.06.01
• Ver.1.0.6	2016.06.27
• Ver.1.0.7	2018.01.05
• Ver.1.0.8	2018.03.28
• Ver.1.1.0	2018.09.21

Manual Version: September 2018. For using this product with camera systems or accessories available after this date, please contact your authorized INON dealer.

INON

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