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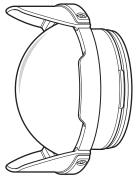
PPO-EP02

Instruction Manual

OLYMPUS

KR 취급설명서

PPO-EP02



日本語

ENGLISH

FRANÇAIS

DEUTSCH

ESPAÑOL

中文

한국어

98

_	
JP 取扱説明書	2
EN Instruction Manual	18
FR Mode d'emploi	34
DE Bedienungsanleitung	50
ES Manual de Instrucciones	66
CHS 使用说明书 ※使用产品前请阅读使用说明	. 82

OLYMPUS

WC914701

OLYMPUS°

- Thank you for purchasing the Underwater Lens Port (PPO-EP02) (hereinafter, the Lens Port).
- Please read this instruction manual carefully and use the product safely and correctly. Please keep this instruction manual for reference after reading it.
- Wrong use may cause damage to the camera and lens inside the Lens Port due to water leakage, and repair may not be possible.
- Before use, perform an advance check as described in this manual.

Introduction

- Unauthorized copying of this manual in part or in full, except for private use, is prohibited. Unauthorized reproduction is strictly prohibited.
- OLYMPUS CORPORATION shall not be responsible in any way for lost profits or any claims by third parties in case of any damage occurring from improper use of this product.

Please read the following items before use

This Lens Port is designed for use at a water depth within 60 m. Please handle it with sufficient care.

Please take care to ensure that the Underwater Case (hereinafter, the Case) has an appropriate pressure resistance. When using the Lens Port with the PT-EP08 or PT-EP11 (pressure resistance to 45 m), do not use beyond a depth of 45 m.

- Please use the Lens Port correctly after sufficient understanding of the contents of this manual in regard to handling of the Lens Port, checks before use, maintenance, and storage after use.
- OLYMPUS CORPORATION shall in no way be responsible for accidents involving immersion of a camera and lens in water. In addition, expenses incurred for damage of internal materials or loss of recorded contents due to water entering the camera and lens will not be compensated.
 - Please address these possible damages by insuring your camera and lens at your own discretion before use.
- OLYMPUS CORPORATION shall not pay any compensation for accidents (injuries or material damage) at the time of use.

For safe use

This instruction manual uses various pictographs for correct use of the product and to prevent danger to the user and other persons as well as property damage. These pictographs and their meanings are shown below.

△ WARNING	This shows the content regarding assumption of possibility of human death or severe injury in case of handling with disregard of this indication.
△ CAUTION	This shows the contents regarding assumption of possibility of injury or damage to property in case of handling with disregard of this indication.

△ WARNING

- Keep this product out of the reach of babies, infants, and children. There is the possibility of occurrence of the following types of accidents.
 - Injury by dropping onto the body from a height.
 - Swallowing of small parts, O-ring, silicone grease and silica gel.
 Please consult a physician immediately if any parts have been swallowed.
- ② There is the possibility that injuries may be caused when it becomes broken because of strong impact with a rock or other hard objects. Please handle it with sufficient care.

A CAUTION

- ① Do not disassemble or modify this product. This may cause water leakage or defect. In case of the loss of image data caused by disassembly, repair or modification etc. by any party other than those appointed by OLYMPUS CORPORATION, we shall bear no responsibility for damage.
- ② Use or storage of the product at the following locations may cause defective operation, trouble, damage, fire, internal clouding, or water leakage. This should be avoided.
 - Locations reaching high temperatures such as those under direct sunlight, in an automobile, etc.
 - · Locations close to fire
 - · Water depths in excess of 60 m
 - · Locations subject to vibrations
 - Locations with high temperature and humidity or with severe temperature changes
 - · Locations with volatile substances
- ③ Opening and closing at locations with much sand, dust, or dirt may impair the waterproof characteristic and cause water leakage. This should be avoided.
- This product does not soften impacts to the camera or lens in the Case on which it is mounted. If, when the product is mounted on the Case, the assembly is subjected to an impact or placed under heavy object, damage to the camera or lens may result. Please handle it with sufficient care.
- ⑤ Do not use the following chemicals for cleaning, corrosion prevention, prevention of fogging, repair or other purposes. When these are used for the Lens Port directly or indirectly (with the chemicals in vaporized state), they may cause cracking under high pressure or other problems.

Chemicals which cannot be used	Explanation	
Volatile organic solvents, chemical detergents	Do not clean the Lens Port with alcohol, gasoline, thinner or other volatile organic solvents or with chemical detergents etc. Use pure water or lukewarm water.	
Anticorrosion agent	Do not use anticorrosion agents. Wash with pure water.	
Commercial defogging agents	Do not use commercial defogging agents. Always use the specified desiccant silica gel.	
Grease other than specified silicone grease	Use only the specified silicone grease for the O-ring, as otherwise the O-ring surface may deteriorate and water leakage may occur.	
Adhesive	Do not use adhesive for repairs or other purposes. When repair is required, please contact a dealer or a service station of OLYMPUS CORPORATION.	

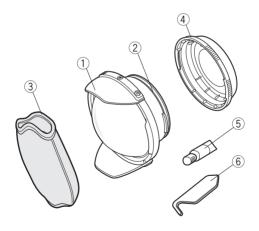
- ⑥ In the event that you discover that water has leaked into the product, stop using the camera underwater immediately, remove any moisture adhered to the product, remove the camera and lens from the Case, and consult a service center.
- Please remove the O-ring when traveling by air. Otherwise air pressure may make it impossible to remove the rear cap.
- ® To ensure safe use of the product, carefully read the instruction manuals of the camera and the Case to which the product is attached.
- When attaching this product to the Case, make sure that foreign matter is not trapped between the O-ring and the contact surface as this can adversely affect the waterproofing and result in leakage occurring.
- When attaching this product to the Case, be sure to follow the attachment method set out in this manual, ensuring that the instructions are followed in the correct order.
- ① Before detaching this product from the Case, dry all parts fully and check that no moisture is adhered.
- When storing this product, always detach it from the Case and fit the front cover and the rear cap.
- When the Lens Port is not to be used for a long time, remove the O-ring from the groove to prevent deformation of the O-ring, apply a thin coat of silicone grease, and store it in a clean plastic bag or the like.

1. Preparations

Check the contents of the package

Check that all accessories are in the box. Contact your dealer if accessories are missing or damaged.

- 1PPO-EP02 main body
- 20-ring (POL-E301)
- 3 Front cover
- 4 Rear cap
- ⑤ Silicone grease
- 60-ring remover
- 7 Instruction manual (this manual)



2. Advance Check of the Lens Port

Advance check before use

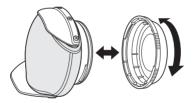
This Lens Port has been the subject of thorough quality control for the parts during the manufacturing process and thorough function inspections during the assembly. In addition, a water pressure test is performed with a water pressure tester for all products to confirm that the performance conforms to the specifications.

However, depending on the carrying and storage conditions, the maintenance status, etc., the waterproof function may be damaged. Before using, always perform the following advance checks.

↑ CAUTION:

If the advance test should show water leakage with normal handling, stop using the Lens Port and contact your dealer or an Olympus service station.

Attaching/Removing the Rear Cap



Remove the O-ring

Remove the rear cap and remove the O-ring fitted to the Lens Port.

- ① Insert the O-ring remover into the gap between the O-ring and O-ring groove wall.
- ② Slip the tip of the inserted O-ring remover below the O-ring. (Be careful not to scratch the O-ring groove with the tip of the O-ring remover.)
- 3 Lift the O-ring, pinch it with your fingertips and pull it out of the Lens Port.

Remove any sand, dirt, etc.

After visually checking that dirt has been removed from the O-ring, checks for sand and other foreign matter adhered, damage and cracks can be done by squeezing the entire circumference of the O-ring lightly with your fingertips.



Remove any foreign matter adhered to the O-ring groove using a lint-free clean cloth or cotton swab. Also, remove any sand or dirt adhered to the O-ring sealing surface of the Case body.

↑ CAUTION:

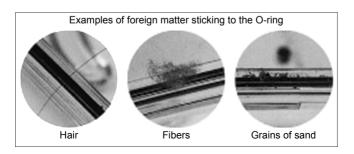
- When a sharp object is used to remove the O-ring or to clean the inside of the O-ring groove, the Lens Port and the O-ring may be damaged and water leakage may occur.
- · Take care not to stretch the O-ring.
- Never use alcohol, thinner, benzene or similar solvents or chemical detergents to clean the O-ring. When such chemicals are used, the O-ring may be damaged or its deterioration will be accelerated.

How to Apply Grease to the O-ring

1	Apply the exclusive lubricant to the O-ring.		Make sure that your fingers and the O-ring are free of dirt, then squeeze the appropriate amount of exclusive lubricant onto a finger to spread onto the entire circumference of the O-ring (approx. 15 mm is adequate).
2	Spread the lubricant all over the O-ring.	T	Apply the lubricant with 3 fingers and spread it over the O-ring. Be careful not to use force as this may stretch the O-ring.
3	Check that the O-ring is free of scratches or unevenness.		After spreading the lubricant, check visually and by touch that the O-ring is not scratched and that its surface is flat. If it is damaged in any way, be sure to replace it with a brand-new O-ring.

A CAUTION:

- Always perform maintenance of the waterproof function even when the Case has been opened every shooting. Neglecting this maintenance may cause water leakage.
- When the Lens Port is not to be used for a long time, remove the O-ring from the groove to prevent deformation of the O-ring, apply a thin coat of silicone grease, and store it in a clean plastic bag or the like.

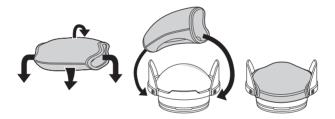


Install the O-ring

Confirm that no foreign matter is in the groove and then fit the O-ring. At this time, confirm that the O-ring does not stick out from the groove. Before attaching this product to the Case, make sure that there is no hair, fiber, grains of sand or other foreign matter adhered to the O-ring or to the contact surface (front lid). Even a single hair or a single grain of sand may cause water leakage. Please check with special care.

Attaching/Removing the Front Cover

To attach the front cover, fit it into the front end (lens hood) of the Lens Port as shown below. The front cover can be removed by reversing the attaching procedure. Be sure to remove the front cover before shooting.



3. Mounting the PPO-EP02 on the Case

This product should be used only with the appropriate Case (PT-EP08/PT-EP11). For further details, please see the instruction manual of the Case.

To prevent contamination and scratching of the lens, keep the front cover in place when attaching or detaching the Lens Port.

If water droplets are adhered to the product, wipe them off and make sure the product is dry.

Installation

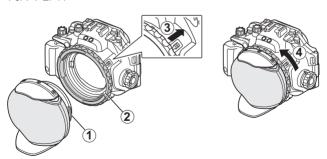
Align the protrusion (1) of the Lens Port with the notch (2) on the Case, press on the Lens Port as far as it will go, and turn the port ring to lock. Check that the Lens Port does not come off.

Removal

If water droplets etc. are adhered to the Case or the Lens Port, wipe them off and check to ensure both items are dry.

Slide the slide lock of the port ring (3), and turn the port ring (4). Then, remove the Lens Port.

For PT-EP11



↑ CAUTION:

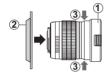
- When removing this product from the Case, water droplets left in the region
 of the O-ring of the product can be flicked onto the lens or camera body. In
 the event that water droplets adhere to the lens or camera, do not panic
 wipe them off immediately with a dry cloth etc.
- When detaching this product, check that it has fully dried before proceeding.
- Make sure that you do not contaminate the lens part of the Lens Port with fingerprints etc.

4. Using Accessories

Attaching the Anti-Reflection Ring (POSR-EP10: optional)

The anti-reflection ring (POSR-EP10) designed for the M.ZUIKO DIGITAL ED 8mm f1.8 Fisheye PRO is recommended as it works to reduce irregular reflection.

With the front cap (1) attached to the lens, fit the anti-reflection ring (2) from the rear side of the lens. Push in the anti-reflection ring as far as indicated by the arrow in the diagram. (3)





Attaching the Focusing Gear (PPZR-EP05: optional)

When the focusing gear (PPZR-EP05) designed for the M.ZUIKO DIGITAL ED 8mm f1.8 Fisheye PRO is used, manual focus operations (MF) can be used underwater.

Fit the focusing gear (PPZR-EP05) from the rear side of the lens, pressing it on until it will go no further.

When combining with the anti-reflection ring, please fit the anti-reflection ring first.







⚠ CAUTION:

If the focusing gear position is not aligned correctly, smooth MF control is not possible. Be sure to attach the focusing gear to the correct position.

5. Handling After Shooting

↑ CAUTION:

After coming out of the water, do not detach the Lens Port from the Case or open the Case. Instead, rinse the entire Case assembly in fresh water.

Wash the Case with pure water

- ① After use, clean the Case and Lens Port thoroughly with pure water as soon as possible.
 - After use in sea water, soak it in pure water for a fixed time (30 minutes to an hour) to remove any salt.
- ② Operate the shutter button and various buttons of the Case in pure water to clean and remove the salt attached to the shaft.
- 3 Take it out of the water and rinse with pure water.

⚠ CAUTION:

- · Do not disassemble for cleaning.
- Drying the Case with salt adhered may impair the function. Always wash
 off any salt after use.

Wipe off any waterdrop

Remove any drops of water from the Case and Lens Port. Use air or a soft cloth not leaving any fibers to thoroughly wipe any waterdrop from the joint between the front and rear lid, the palm grip, the open/close dial and other operating parts.

⚠ CAUTION:

- When waterdrops remain between the front and the rear lid, they may spill
 to the inside when the Case is opened. Take special care to wipe off all
 waterdrops.
- When removing this product from the Case, water droplets left in the region
 of the O-ring of the product can be flicked onto the lens or camera body. In
 the event that water droplets adhere to the lens or camera, do not panic
 wipe them off immediately with a dry cloth etc.
- When detaching this product, check that it has fully dried before proceeding.

6. Maintaining the Waterproof Function

The O-ring is a consumable product. Before each use, perform proper maintenance. Always be sure to perform the O-ring maintenance operation as described below. Neglecting this maintenance may become the cause of water leakage.

Perform at the location without sand or dust, after washing and drying your hands

Remove the O-ring

Refer to P.23.

Remove any sand, dirt, etc.

Refer to P 24

How to Apply Grease to the O-ring

Refer to P.25.

Install the O-ring

Refer to P 26

Replace consumable parts

- The O-ring is a consumable product. Independent of the number of times the Lens Port is used, it is recommended that the O-ring should be replaced by a new piece after a year has passed.
- Deterioration of the O-ring is accelerated by the use conditions and the storage conditions. Replace the O-ring even before a year has passed if it shows signs of damage, crack or loss of elasticity.

A CAUTION:

- · Please use genuine Olympus silicone grease, silica gel and O-ring.
- · We recommend to perform the check periodically.

7. Specifications

Applicable underwater case	PT-EP08, PT-EP11
Applicable lens	M.ZUIKO DIGITAL ED 8mm f1.8 Fisheye PRO
Pressure resistance	Depth of up to 60 m
Main materials	Body: Aluminum alloy Lens window: AR coated glass
Operating environment	0°C - 40°C (32°F - 104°F) (operation) / -20°C - 60°C (-4°F - 140°F) (storage)
Dimensions	Maximum diameter 148 mm × Depth 91 mm
Weight	682 g (not including accessories)

^{*} We reserve the right to change the external appearance and the specifications without notice.



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