

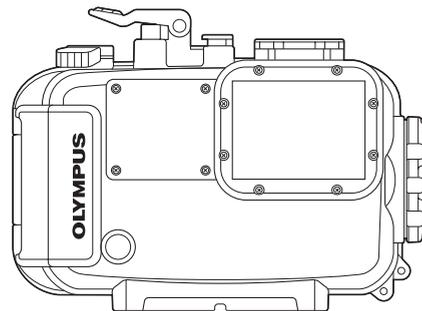
OLYMPUS

PT-057
Instruction Manual

OLYMPUS

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PT-057



日本語

ENGLISH

FRANÇAIS

DEUTSCH

ESPAÑOL

中文

한국어

JP 取扱説明書

EN Instruction Manual

FR Mode d'emploi

DE Bedienungsanleitung

ES Manual de Instrucciones

CHS 使用说明书 ※使用产品前请阅读使用说明。

KR 취급설명서

OLYMPUS IMAGING CORP.

- Thank you for buying the Underwater Case PT-057 (hereinafter Case).
- 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 inside the Case 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 IMAGING CORP. 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 Case is a precision device designed for use at a water depth within 45 m. Please handle it with sufficient care.

- Please use the Case correctly after sufficient understanding of the contents of this manual in regard to handling of the Case, checks before use, maintenance, and storage after use.
- OLYMPUS IMAGING CORP. shall in no way be responsible for accidents involving immersion of a digital camera in water. In addition, expenses incurred for damage of internal materials or loss of recorded contents due to water entering the camera will not be compensated. Please address these possible damages by insuring your camera at your own discretion before use.
- OLYMPUS IMAGING CORP. 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.

EN

 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

- ① 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.
 - Injury from parts of the body getting caught in parts which open and close.
 - Swallowing of small parts, O-ring, silicone grease and silica gel. Please consult a physician immediately if any parts have been swallowed.
 - Triggering of the flash in front of the eyes may cause permanent vision impairment etc.
- ② Do not store with a battery in the digital camera housed in this product. Storage with a battery inserted may lead to leakage of the battery liquid and fire.
- ③ If leakage of water should occur with a camera installed in this product, quickly remove the battery from the camera. There is the possibility of ignition and explosion from generation of hydrogen gas.
- ④ This product is made of resin. 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.

⚠ 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 IMAGING CORP., 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 45 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.
- ④ This product is not a case to soften impacts to the camera inside the product. When this product with a digital camera inside it is subjected to impacts or heavy objects are placed onto it, the digital camera may become damaged. 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 Case 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 Case 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. The metal parts use stainless steel or brass. 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 silicone 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 IMAGING CORP.

- ⑥ Jumping into the water with the Case in your pocket or in your hand, throwing the Case from a boat or ship into the water, and other rough handling may cause water leakage. Please handle with sufficient care, when handing it over from hand to hand etc.
- ⑦ If the Case interior or the camera should become wet because of water leakage, etc., immediately wipe off all moisture and contact your local service station or dealer.
- ⑧ Please remove the O-ring when traveling by air. Otherwise air pressure may make it impossible to open the Case.
- ⑨ For safe use of the digital camera in this product, please read the "Instruction Manual" for the digital camera carefully.
- ⑩ When sealing this product, take sufficient care that no foreign matter gets caught at the O-ring and the contact surface. It is caused for water leakage.
- ⑪ When you install your digital camera in the Case after taking pictures in the water, it may cause the loss of transparency of the lens inside even if you insert the supplied silica gel to the Case when drying the camera is insufficient.

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1. Preparations

Check the contents of the package

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Check that all accessories are in the box.

Contact your dealer if accessories are missing or damaged.

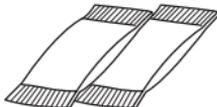
- Optical fiber cable adapter



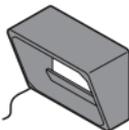
- Silicone grease



- Silica gel (1g)



- Monitor hood (on the body)

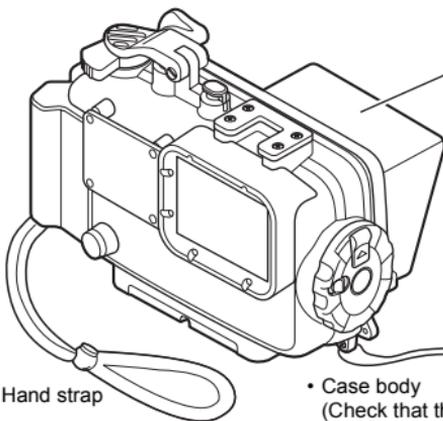


- Monitor hood strap

- Lens cap



- Hand strap



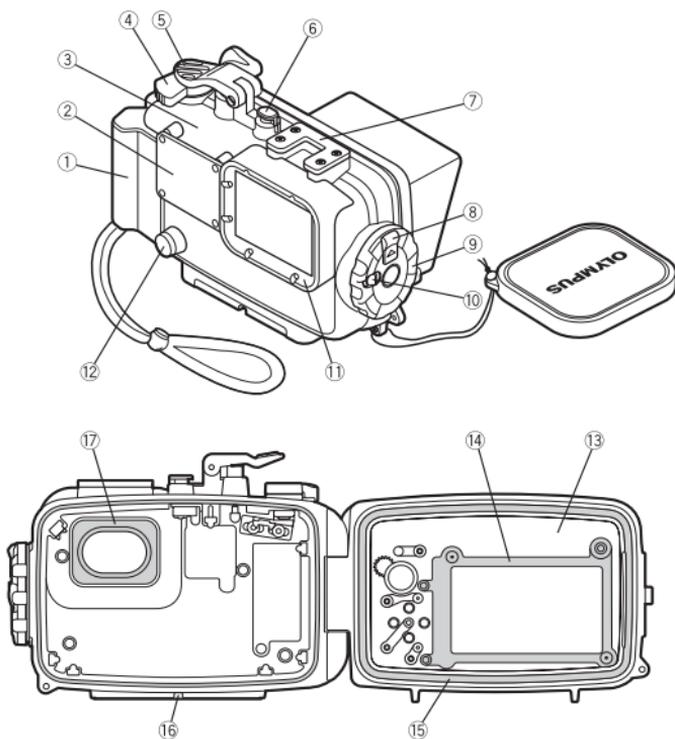
- Case body (Check that the O-ring is installed)

- O-ring remover

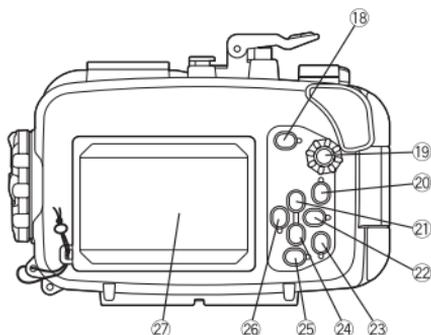


- Instruction manual (this manual)

Names of the parts



- | | | |
|-------------------------|-------------------------------------|----------------------|
| ① Palm grip | ⑦ Accessory mount | ⑬ Rear lid |
| ② Diffuser | ⑧ Slide lock | ⑭ Monitor inner hood |
| ③ Front lid | ⑨ Open/close dial | ⑮ O-ring |
| *④ Zoom lever | ⑩ Lock knob | ⑯ Tripod seat |
| *⑤ Shutter button | ⑪ Lens ring | ⑰ Lens ring rubber |
| *⑥ ON/OFF button | ⑫ Front button
(for TG-860 only) | |



- | | | |
|-----------------------------|------------------------------------|----------------------------|
| *18 ● (Movie) button | *22 ⚡ button/Arrow pad ► | *25 MENU/Wi-Fi button (*2) |
| *19 Mode dial knob | *23 OK button (*1) | *26 Arrow pad ◀ |
| *20 ▶ (Play) button | *24 📷 button/🗑️ button/arrow pad ▼ | *27 Monitor window |
| *21 INFO button/arrow pad ▲ | | |

(*1) During Underwater Wide-Angle 1 or Underwater Macro shooting mode, the OK button functions as the AF LOCK button.

(*2) The Wi-Fi button functions only for TG-860.

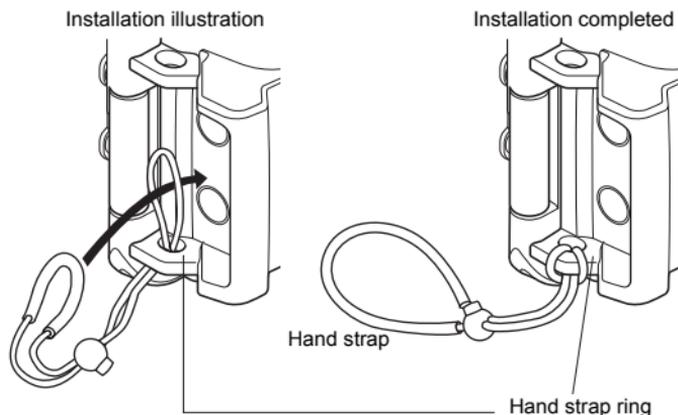
Memo:

The Case operation parts marked by * correspond to the operation parts of the digital camera. When the operation parts of the Case are operated, the corresponding functions of the digital camera will operate. For details of the functions, refer to the instruction manual for the digital camera.

Using the accesories

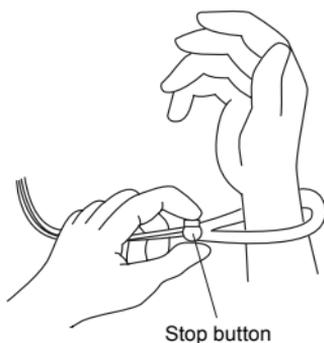
Install the hand strap

Install the hand strap on the Case body.



How to use the hand strap

Pass your hand through the hand strap and adjust the length with the stop button.



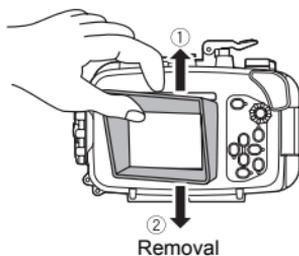
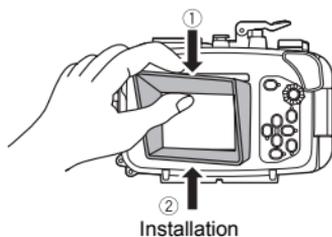
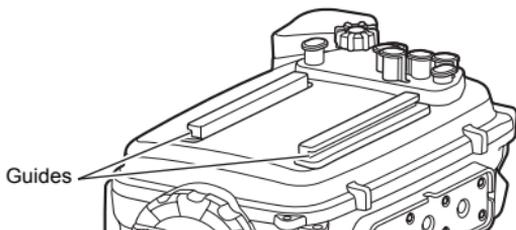
Installation and removal of the monitor hood

Installation

Fit the monitor hood as shown in the figure into the guides above and below the monitor window one after the other.

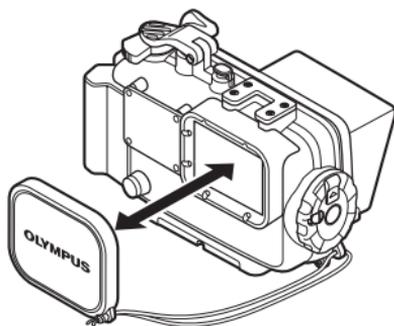
Removal

Remove the monitor hood from the guides above and below the monitor window one after the other by widening the monitor hood.



Mounting and removing the lens cap

Fit the lens cap onto the lens ring as shown in the figure. Be sure to remove the lens cap before shooting.

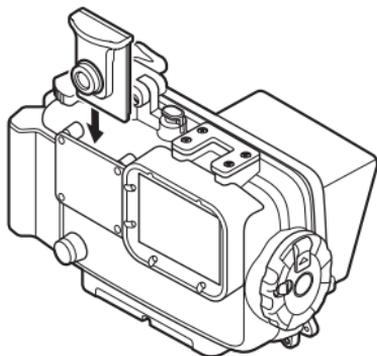


Using the optical fiber cable adapter

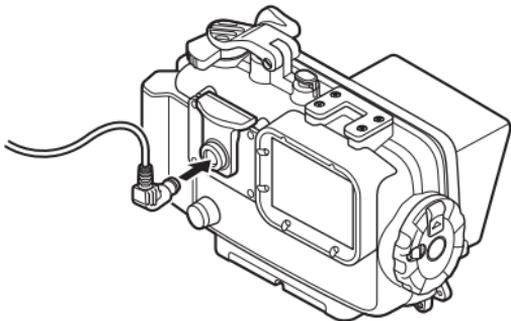
The optical fiber cable adapter is required when connecting the separately available UFL-3 underwater flash to the Case using an underwater optical fiber cable (optional: PTCB-E02).

How to install

- ① Attach the optical fiber cable adapter to the diffuser shown in the figure below.



- ② Put the underwater optical fiber cable plug all the way into the insertion slot of the optical fiber cable adapter until the black axis of the connector is hidden.



Remove the optical fiber cable adapter when you do not use an underwater optical fiber cable while taking picture.

Memo:

The TG-860's RC mode can be used.

When UFL-3 is used, set camera and UFL-3 to RC mode.

For details, see the instruction manual of digital camera and UFL-3.

Because it does not support the RC mode, TG-850 cannot be used the UFL-3. Use a commercially available external flash.

Check the digital camera

Check the digital camera before loading it in the Case.

1. Battery Confirmation

The flash is used very frequently during underwater shooting.

Before diving, make sure that you have enough remaining battery power.

2. Confirmation of the Remaining Number of Pictures to be Taken

Confirm that the image storage has a sufficient remaining number of pictures to be taken.

3. Remove the hand strap from the digital camera.

When a digital camera is loaded without removing the hand strap, the hand strap may get caught between the Case lids and may cause water leakage.

2. Advance Check of the Case

Advance check before use

This Case 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.

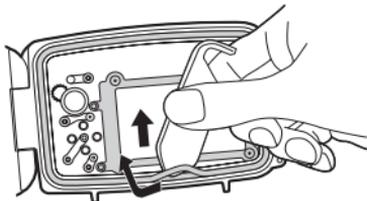
However, depending on the carrying and storage conditions, the maintenance status, etc., the waterproof function may be damaged. Before using, always perform the following advance checks.

⚠ CAUTION:

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

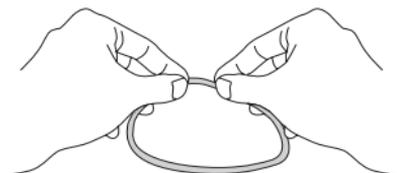
Remove the O-ring

- ① Open the Case.
For details about how to open the Case, see P.19 of this manual.
- ② Insert the O-ring remover into the gap between the O-ring and O-ring groove wall.
- ③ 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.)
- ④ Lift the O-ring, pinch it with your fingertips and pull it out of the Case.

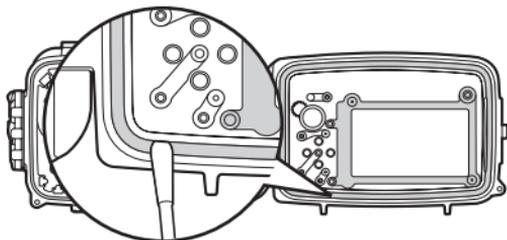


Remove any sand, dirt, etc.

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 contact surface on the front lid of the Case.



⚠ CAUTION:

- When a sharp object is used to remove the O-ring or to clean the inside of the O-ring groove, the Case 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.

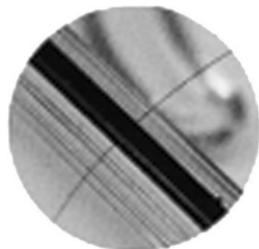
How to Apply Grease to the O-ring

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.		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.

⚠ 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 Case 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.

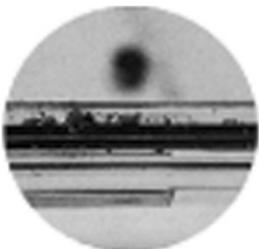
Examples of foreign matter sticking to the O-ring



Hair



Fibers



Grains of sand



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.

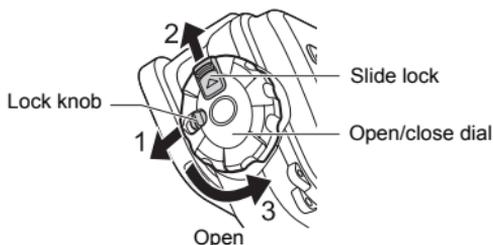
EN

When sealing this product, make sure that no hairs, fibers, sand particles or other foreign matter stick not only to the O-ring, but also 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.

3. Install the digital camera

Open the Case

- ① Slide the lock knob towards the arrow direction (1 of figure below).
- ② Slide and hold the slide lock towards the arrow direction (2 of figure below) and turn the open/close dial counter clockwise (3 of figure below).
- ③ Turn the open/close dial to the position where it cannot be turned further.
- ④ Open the rear lid of the Case gently.



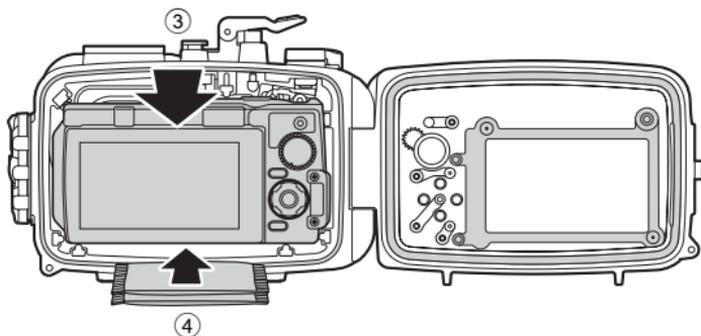
⚠ CAUTION:

Do not exert too much force while turning the open/close dial. Doing so may damage the dial.

Load the digital camera

- ① Confirm that the digital camera is OFF.
- ② Put the monitor in closed position.
- ③ Gently and straightly insert the digital camera into the Case.
- ④ Insert 2 piling up silica gel bags (1 g) between the bottom of the digital camera and the Case.

The silica gel bags are provided for prevention of fogging.



⚠ CAUTION:

- If the silica gel bag is caught when the Case is sealed, water leakage will occur.
- Once silica gel has been used, the moisture absorption performance will be impaired. Always replace the silica gel when the Case is opened and closed.

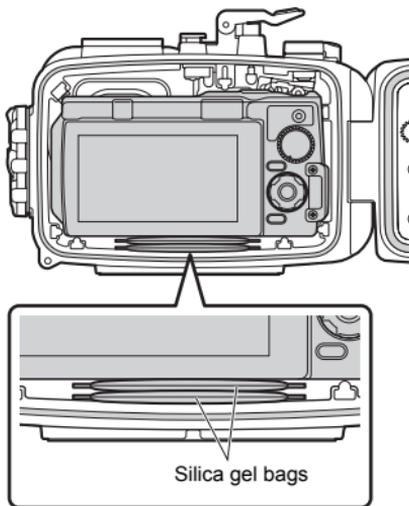
Make sure the camera is loaded properly

Check the following points before sealing the Case.

- Is the digital camera loaded properly?
- Are silica gel bags inserted all the way?

When the silica gel bags are not inserted correctly, it causes entrapment when closing the rear lid.

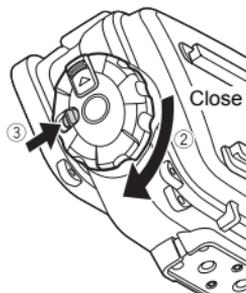
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- Is the O-ring attached properly to the opening on the Case?
- Is there any dirt or foreign matter on the O-ring or the O-ring contact surface on the front lid?

Seal the Case

- ① Close the Case gently while aligning the mounting projection of the rear lid and groove.
- ② Turn the open/close dial clockwise until you hear a "click" sound to lock the Case.
 - The Case is sealed.
- ③ Slide the lock knob towards the LOCK side.



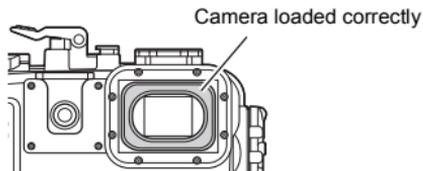
⚠ CAUTION:

- If the open/close dial is not fully turned, the Case will not be sealed. This will cause water leakage.
- Close the rear lid of the Case so that the lens cap and LCD hood straps do not get caught. If the straps are caught, water leaks may result.

Check the operation of the loaded camera

After sealing the Case, check that the camera operates normally.

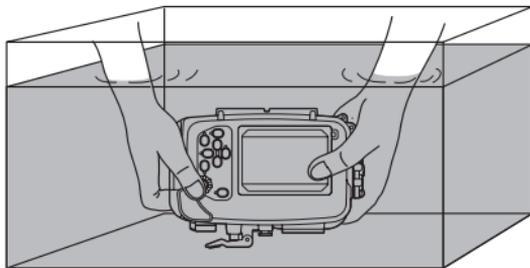
- Operate the ON/OFF button on the Case and confirm that the camera turns ON/OFF.
- Press the shutter button on the Case and confirm that the camera shutter releases.
- Also operate other control buttons on the Case and confirm that the camera functions properly.
- Confirm the rubber around the lens ring is not turned up. (If you see the lens ring of the digital camera, unload the camera and load it again.)



Water Leakage Test

The final test after loading the camera is explained below. Always perform this test. It can be performed easily in a water tank or a bathtub. Confirm the operation of the different buttons. The required time is about 5 minutes.

- At first, immerse the Case for only 3 seconds and check that no water enters the Case.
- Next, immerse the Case for 30 seconds and check that no water drop etc. has entered the Case.
- Then, immerse the Case for 3 minutes, operate all buttons and levers, and check the following:
 - check that no water has entered the Case.
 - check that the Case is not clouded.
 - check that no water drop has entered the Case.
- If the inside of the Case becomes cloudy or there is a water drop, do the maintenance of the O-ring and perform the water leakage test again.



4. Taking Pictures Under Water

Underwater shooting modes

Underwater Wide-Angle 1

Suitable for shooting a scene that extends across a wide range such as a school of fish swimming through the water. Background blues are vividly reproduced.

Underwater Wide-Angle 2

Because the focal length is fixed, suitable for shooting a large, fast moving subject such as a dolphin or manta ray.

In many dolphin-watching locations, use of a flash is not permitted to avoid frightening the dolphins. Although this mode was originally designed to work without the flash, it can also be enabled if required, for example when shooting a manta ray.

Underwater Macro

Suitable for close-up shooting of small fish and other underwater creatures. Natural colors of the underwater are accurately reproduced.

For details, refer to the instruction manuals of the digital camera.

CAUTION:

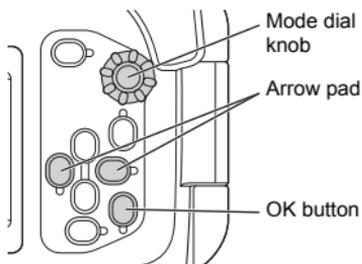
When taking macro pictures on the wide-angle and if getting too close to the subject, the flash light may be missing in some parts of the picture or the light volume may not be uniform.

During underwater shooting, shooting conditions (water clarity, suspended matter, etc.) can have a significant effect on the range of the flash.

Always check your pictures on the LCD monitor after shooting.

How to select the shooting scene

- ① Turn the mode dial knob, and then set the camera's shooting mode to "SCN".
- ② Press the left/right arrow pad to select the shooting scene, and then press the OK button.

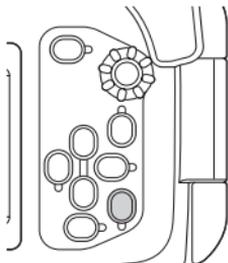


Locking AF during underwater shooting

When the "Underwater Wide-Angle 1" or "Underwater Macro" mode is selected, you can easily lock the focus position (AF lock operation) by pressing the OK button.

When the focus is locked, the AF lock indicator appears on the monitor screen of the camera.

To cancel the AF lock, press the OK button again.



5. Handling After Shooting

Wash the Case with pure water

- ① After use, clean the protector 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 product 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. 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.

Take out the digital camera

Open the Case carefully and take the digital camera out.

CAUTION:

- When opening the Case, take sufficient care that no water will drip from your hair or body onto the Case and the camera.
- Before opening the Case, make sure that your hands or gloves are free of sand, fibers, etc.
- Do not open or close the Case at locations where there is water spray or sand.
- Take care not to touch the digital camera or the battery with hands wet with sea water.

Dry the Case

After washing with pure water, use a clean cloth to wipe off any waterdrops. Be sure to use a soft, dry cloth free of salt residue that does not leave any loose fibers. Dry the Case completely at a well ventilated location in the shade.

CAUTION:

- Do not use hot air from a hair dryer or the like for drying and do not expose the Case to direct sunlight, as this may accelerate deterioration and deformation of the Case and deterioration of the O-ring, leading to leakage of water.
- When wiping the Case, take care not to cause scratches.

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.15.

Remove any sand, dirt, etc.

Refer to P.16.

How to Apply Grease to the O-ring

Refer to P.17.

Install the O-ring

Refer to P.18.

Replace consumable parts

- The O-ring is a consumable product. Independent of the number of times the Case 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.

Note:

- Please use genuine Olympus silicone grease, silica gel and O-ring.
- Do not try to replace the O-ring by yourself.
- We recommend to perform the check periodically.

7. Appendix

EN

Specifications

Compatible models	Olympus digital camera STYLUS TG-850 Tough/ STYLUS TG-860 Tough
Pressure resistance	Depth of up to 45 m
Main materials	Body: Polycarbonate Lens window: Multiple coat glass
Operating environment	0°C - 40°C (32°F - 104°F) (operation) / -20°C - 60°C (-4°F - 140°F) (storage)
Dimensions	Approx. 154 mm (Width) x 117 mm (Height) x 75 mm (Depth)
Weight	Approx. 456 g (camera and accessories not included)
Buoyancy under water	Approx. 95 g (in the freshwater) (Underwater Case only)
Weight under water	Approx. 50 g (camera (TG-860), batteries and media card included)

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

Supplied accessories for PT-057

O-ring: POL-053

Silica gel: SILCA-5S

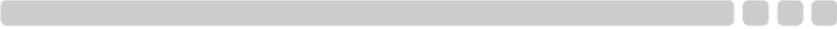
Silicone grease: PSOLG-2

Monitor hood: PFUD-057

Lens cap: PRLC-16

Optical fiber cable adapter: PFCA-01

The above accessories can be purchased.



Sold separately accessories

Silicone grease: PSOLG-3

Optical fiber cable: PTCB-E02

Underwater flash: UFL-3

Short arm: PTSA-02, PTSA-03

Maintenance kit: PMS-02

O-ring remover (2): PTAC-05

Balance weight: PWT-1BA

PWT-1AD

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