

INON

UFL-G140 SD

Underwater Semi-fisheye

Conversion Lens

User Manual

Safety Precautions

- Before using your lens, please ensure that you have read and understood the safety precautions described below and user manuals. Please retain user manuals handy for easy reference.
- The safety precautions are intended to instruct you in the safe and correct operation of the strobe to prevent injuries or damage to yourself, other persons and equipment.



WARNING

Failure to observe the precautions described below may lead to possibility of serious injury or death.

Never attempt to see the sun or strong light source through the lens or camera to avoid irreparable injury to the eyes, or temporary visual impairment which may affect your performance requiring safety aspects.

Do not leave the lens in a place subject to direct sunlight to prevent fire which may be caused by the lens collecting sunlight

INON

INON UFL-G140 SD Underwater Semi-fisheye Conversion Lens

Thank you for purchasing INON product.

The INON UFL-G140 SD Underwater Semi-fisheye Conversion Lens is dedicated wet lens mainly designed for action cameras increasing angle of view underwater nearly same as shooting on land and enabling super close-up imaging as well.

Besides your camera, this lens requires INON *SD Mount Cage*, *SD Front Mask* or *SD Mount Base* and genuine camera housing (for particular camera). Check below table to prepare necessary item(s) according to your camera.

| Manufacture | Camera | Genuine housing | INON Cage / Front Mask / Mount Base |
|-------------|---|---|--|
| GoPro | HERO11 Black HERO10 Black HERO9 Black | Dive Housing for HERO9 Black | SD Front Mask for HERO9 |
| | HERO8 Black | Dive Housing for HERO8 Black | SD Front Mask for HERO8 |
| | HERO7 Black, HERO6 Black, HERO5 Black | Dive Housing "Super Suit" for HERO7 Black / HERO6 Black / HERO5 Black (depth rating: 60m/196 ft.) | SD Front Mask for HERO5/6/7 |
| | HERO4, HERO3+, HERO3 | Dive Housing (depth rating: 60m/197 ft.) Standard Housing (depth rating: 40m/131 ft.) | SD Mount Cage for HERO3/3+/4 |
| | HERO, HERO+, HERO+LCD | --- | SD Front Mask STD |
| Olympus | TG-Tracker | --- | SD Mount Base for TG-Tracker |
| Sony | FDR-X3000, HDR-AS300 | MPK-UWH1 | SD Mount Base UWH1 |

Product features

- The native coverage of action camera will narrow down underwater due to different refraction index. INON *UFL-G140 SD* provides ultra wide semi-fisheye imaging with angle of view 140° (*1) underwater enabling wild underwater video work as like using the camera on land.
- INON *UFL-G140 SD* provides closer minimum focusing distance underwater supporting you to shoot a subject at close range to enjoy deformed result. (*2)
- Bayonet **INON SD Mount** compatible to support friendly and speedy lens exchange underwater.
- Optional INON *AD Lens Holder* can hold the *UFL-G140 SD* when the lens is not in use.
- Optics is constructed of 4 elements in 4 groups. Rear element is made from high refractive index glass lens to minimize whole size dramatically without sacrificing performance.
- The inner surface of the front acrylic dome has 5 layers multi-coating to deliver quality footage as like a glass dome at budget price.

(*1) Maximum angle of view (field of view) by using this lens. It varies among different action cameras.

(*2) Refer to *Depth of Field (DoF) Range* on the last page of this manual to see measured DoF data of each camera.

Package contents :

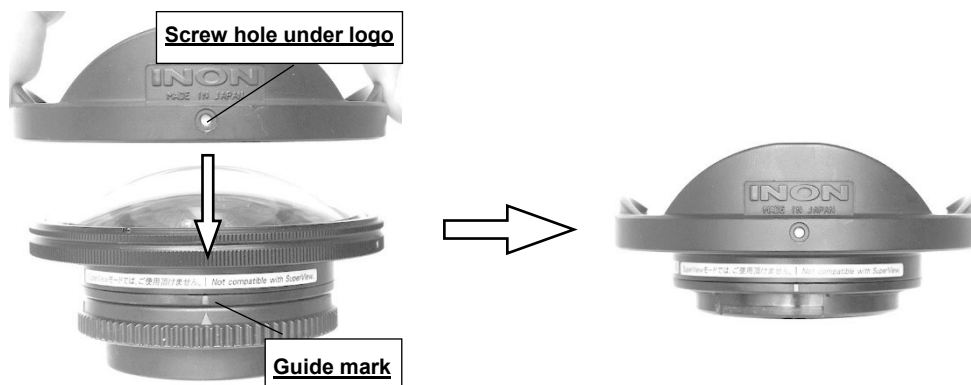
- Underwater Semi-fisheye Conversion Lens UFL-G140 SD ①
- Front Lens Cap (rubber/with lanyard) ②
- Rear Lens Cap (PC) ③
- Lens Hood G140 ④
- M2.5 Hollow Screw ⑤ ×5*
- (*including one spare)
- Allen Wrench (WAF:1.3mm) ⑥



Installation

Installation on SD Mount Cage/SD Mount Base

- Installing Lens Hood:**
- As show in the below image, put the lens hood on the lens all the way until the screw hole under “INON logo” aligns with the guide mark on the lens barrel. Make sure to put the lens hood all the way down to the end. Misalignment or incomplete installation will cause vignetting

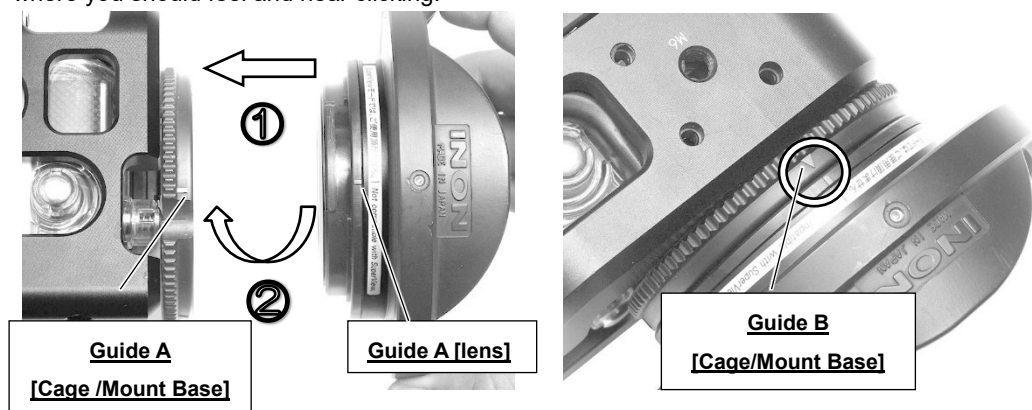


- Place the lens on a flat desk and lightly and evenly tighten hollow screws diagonally by supplied Allen Wrench. Too much or uneven tightening will damage the lens hood.



Installing on Cage / Mount Base

- Match **Guide A** of this lens with **Guide A** of the Cage / Mount Base and put the bayonet mount in the SD Mount.
- Rotate the lens clockwise until **Guide A** of this lens is coupled with **Guide B** of the Cage / Mount Base where you should feel and hear clicking.



- Remove the lens underwater and shake it well to drop trapped bubbles from the rear lens surface then install the lens on the SD Mount Cage/SD Mount Base.

Installation on SD Front Mask

Refer to user manual of *SD Front Mask*.

Usage

[Common notes]

- **This lens is designed only for underwater use.** (When using on land, distant subject is not in focus and angle of view is not as wide as rated)
- Incomplete lens hood installation can cause vignetting. When using the lens hood, refer to "Installing Lens Hood" section in this manual and make sure to install the lens hood properly and completely

[When using for GoPro]

- Always set camera's Field of View (FOV)/Digital Lenses to [WIDE]. Using [Linear] or [Narrow] won't bring optimal performance of this lens.
- When using HERO11 Black, shoot in 4:3 or 16:9 aspect ratio as vignetting will occur in 8:7 or HyperView mode which delivers footage in 16:9 aspect ratio by using the full 8:7 sensor.
- [SuperView™] mode is not recommended. The [SuperView™] mode stretches both ends of the image inside the camera to fit into a 16:9 aspect ratio from originally obtained 4:3 aspect ratio image by the camera sensor. Since the edges of the frame are stretched horizontally, attaching a wide-angle lens further stretches the edges of the frame, resulting in an unnatural image.
- Set the camera's image stabilization (HyperSmooth) to [Standard], [High], or [On]. Setting to [Off] will cause vignetting in image corners, and [Boost] will crop the image significantly.
- The FOV/Digital Lenses setting [Wide] in Photo mode causes vignetting in image corners.
- Since this lens provides ultra wide angle of view, it is recommended to set Spot Meter to ON when using external lighting source (LED flashlight etc.). Setting Spot Meter to OFF may have washout if the external lighting device aims center of the frame.

[When using for TG-Tracker]

- Enable image stabilization function of the camera to avoid vignetting.
- Usable range of DoF (depth of field) with this lens is "1cm/0.4in~80cm/2.6ft" and distant subject beyond this range gets blur.
- **DO NOT** use this lens when taking still image to avoid significant vignetting.

[When using for FDR-X3000 / HDR-AS300]

- Select SteadyShot (Movie) "Act" when shooting video as "Std" and "OFF" cause slight vignetting.
- Excessive camera movement may result vignetting even SteadyShot(Movie) "Act" is selected.
- Select SteadyShot (Still) "ON" when shooting still image.
- Always set camera's angle setting to "Wide". Using "Medium" or "Narrow" won't bring optimal performance of this lens.

- Handling precaution:
- **Follow instruction/procedure in this manual to install the lens properly on the Cage/Front Mask/Mount Base and make sure to check if the lens is properly coupled with the Cage/Front Mask/Mount Base when the lens receives impact shock.** The lens may be dropped when hitting on a rock etc. When using underwater, periodically check if the lens is firmly attached on the Cage/Front Mask/Mount Base.
 - **DO NOT hold this product only to transport whole system** to avoid accidental damage on this product or separation of combined Cage/Front Mask/Mount Base. Hold the Cage/ Front Mask/Mount Base during transportation.
 - **After using, never put the lens caps on or place the lens in a carry pouch with any water (salt or fresh) remaining on the lens surfaces.** Doing so may degrade the glass coatings or the glass itself, or cause spotting or discoloration. Heavy surface degradation would necessitate replacing the damaged lens element(s) which is NOT covered by warranty.
 - **DO NOT disassemble.** Disassembling lens could cause damage and subsequent flooding, and will void warranty.
 - **DO NOT** subject lens to large shocks or vibrations, which can lead to damage and possible flooding.
 - **DO NOT** leave lens exposed to strong sunlight as the lens will collect and concentrate the sunlight, creating a fire hazard. Never attempt to see the sun or strong light source through the lens or camera to avoid irreparable injury to the eyes.
 - **DO NOT** leave lens exposed to strong sunlight such as a boat deck or to high temperatures like in sun-heated car etc. to prevent damage and subsequent flooding.
 - **DO NOT** use the lens if you observe any damage on the lens surface to avoid possible flooding.

- Maintenance:
- After using, **always remove this product from the Cage/Front Mask/Mount Base** and soak the lens in fresh water (below 30°C/ 86°F) for several hours to dissolve any remaining salt, then take out the lens and **blow off water droplets** by compressed air etc. Leave the lens at **shaded** and well-ventilated area to dry **with no water drops on the both lens surfaces** (it may take several days to completely dry).
 - **After completely dry, put lens caps on,** and store out of direct sunlight and well-ventilated area. **DO NOT** store the lens in area with chemical fumes, high humidity or extreme temperature fluctuations. Storage in such area may lead to damage, water leakage, lens surface degradation or mold.

Options:

- UCL-G165 SD Underwater Wide Close-up Lens
An underwater wide close-up lens to use with the SD Mount Cage/SD Front Mask/SD Mount Base to drastically shorten minimum focusing distance to deliver close-up/high magnification imaging. This lens is designed to widen native underwater coverage of action camera to approx. **110 degrees** to have more depth of field not as like a standard close-up lens.

- AD Lens Holder
- AD Lens Holder for Float Arm
Lens holders to hold this product on an INON Arm/Float Arm product to support speedy lens exchange underwater.

- UWL-100 Neoprene Carry Pouch
Neoprene carry pouch to use on land and underwater. Protect lens from shock and abrasion while in transport and storage, as well as while carrying underwater.

- Front Port Cover 100
Neoprene lens cover to use on land and underwater. Protect lens surface from shock while in transport and storage, as well as when not using the lens underwater.



| INON UFL-G140 SD Underwater Semi-fisheye Conversion Lens Specifications [①] | |
|---|--|
| Model | UFL-G140 SD |
| Size [②] | φ 93.4mm/3.7in × 41.8mm/1.6in |
| Weight [②] | air: 300g/10.6oz, underwater: 153g/5.4oz |
| Lens mount | INON SD Mount |
| Depth rating | 60m/197ft |
| Body material/finishing | Corrosion-resistant aluminum alloy/rigid black almite, PC |
| Lens material/finishing | Optical glass/both side coating |
| | Optical plastic/both side hard coating/inner multi-coating |
| Lens construction | 4 groups 4 elements |
| Max. view angle [③] | 140.0°(underwater) |

Depth of field (DoF) with UFL-G140SD [④]

| Mfr. | Camera | DoF | Remarks |
|---------|---------------------------------------|------------------------|---------|
| GoPro | HERO11 BLACK | 4cm/1.6in ~ ∞ | [⑤] |
| | HERO10 BLACK | | |
| | HERO9 BLACK | | |
| | HERO8 BLACK | | |
| | HERO7 BLACK, HERO6 BLACK, HERO5 BLACK | | |
| | HERO4, HERO3+BLACK | | |
| | HERO, HERO+, HERO+LCD | | |
| | HERO3 BLACK | | |
| Olympus | TG-Tracker | 1cm/0.4in ~ 80cm/2.6ft | |
| Sony | FDR-X3000, HDR-AS300 | 4cm/1.6in ~ ∞ | |

- [①] Specification is subject to change without prior notice
- [②] Including 「Lens Hood」
- [③] Maximum angle of view underwater. It varies among different action cameras.
- [④] Measured DoF from foreground of the lens surface. Divide by 1.33 for visual distance underwater.
- [⑤] Measured distance underwater for GoPro® HERO11 BLACK/HERO10 BLACK/HERO9 BLACK/HERO8 BLACK/HERO7 BLACK/HERO6 BLACK/HERO5 BLACK/HERO4/HERO3+BLACK/HERO3 BLACK/HERO /HERO+/HERO+LCD. Other Edition has not been tested.
- [⑥] All brand name, product name and function name in this manual are trademarks or registered trademarks of respective manufactures

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