

INON

INON SD Mount Cage for HERO3/3+/4

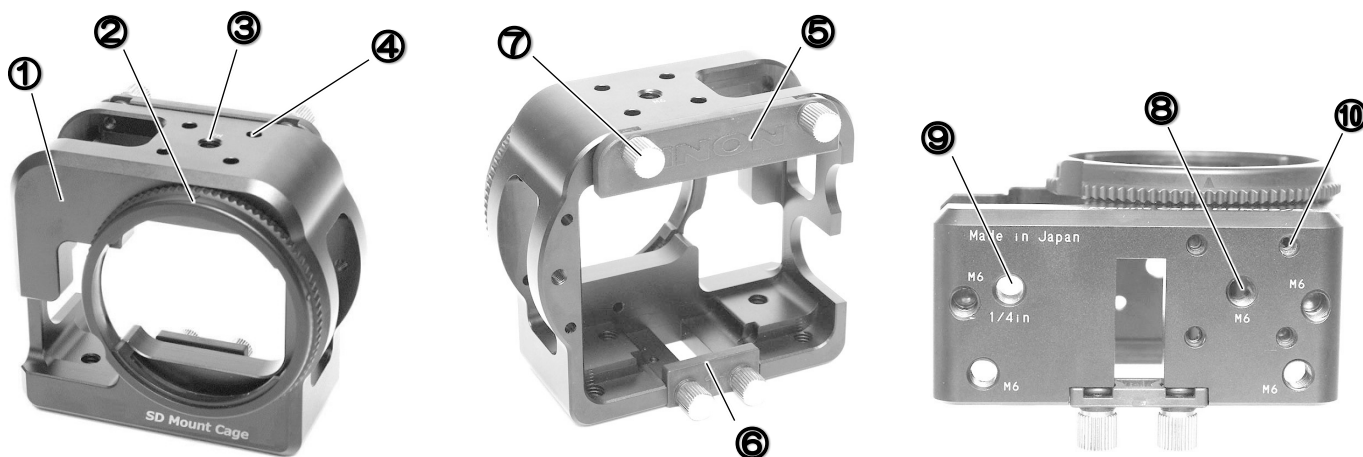
Thank you for purchasing INON product.

INON SD Mount Cage for HERO3/3+/4 is a multi-purpose cage to attach INON SD Mount series attachment lens, base stay, arm etc. on GoPro® genuine dive housing (depth rating: 60m/197 ft. *Option for GoPro® HERO4/HERO3+) for GoPro® 「HERO4」 「HERO3+」 「HERO3」 cameras.

Features

- INON “**SD Mount**” bayonet system compatible. With 「SD Mount」, INON 「UFL-G140 SD」 underwater semi fisheye conversion lens (*2) or 「UCL-G165 SD」 underwater wide close-up lens(*2) exclusively designed for an action camera like GoPro® camera can be easily and securely mounted/detached underwater. Off course you can use the SD Mount Cage without any attachment lens (*1).
- This cage can hold INON 「Direct Base III」, 「Z Joint」 or 「Z Adapter MV」 at its top/bottom surface.
- Packaged Male Adapter (GoPro®) can be attached on top/bottom of the cage to use GoPro® compatible accessories.
- Affordable INON 「D Holder」 can be directly attached on the bottom of this cage at different angles in addition to 「Grip Base D4」.
- The tripod screw hole (1/4 inch) on the bottom enables to use tripod/monopod (*3).
- Durable construction machined from an aluminum block protects combined housing.
- Compatible with LCD BackPac™, Battery BackPac™.

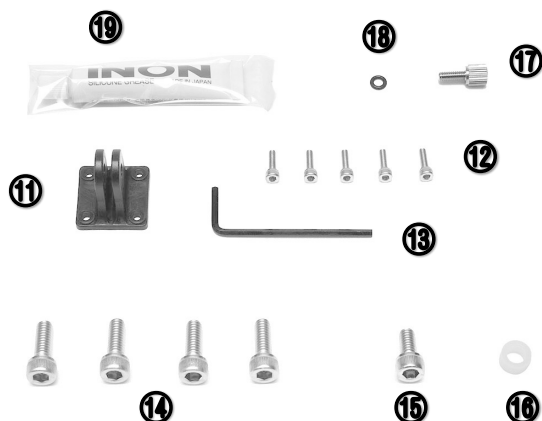
Name of parts



1. SD Mount Cage for HERO3/3+/4 body
2. Lens Mount (SD bayonet mount)
3. Optional Accessory Fixing Hole (M6)
4. Male Adapter Fixing Hole (M3×4)
5. Upper Fixing Plate

6. Lower Fixing Plate
7. Knurled Screw × 4
8. Optional Accessory Fixing Hole (M6×5)
9. Tripod Screw Hole (1/4 inch)
10. Male Adapter Fixing Hole (M3×4)

Packaged accessory:



11. Male Adapter (GoPro®)
12. Male Adapter Fixing Screw ×5*
*including one spare.
13. Allen Wrench 2.5mm
14. M6×16 Cap Screw (D Holder) ×4
15. M6×12 Cap Screw (Z Joint)
16. M6 Spacer (6mm, white)
17. Knurled Screw (spare)
18. Knurled Screw O-ring (spare)
19. INON grease
20. This user manual

Compatible housing: GoPro® Dive Housing for HERO4, HERO3+, HERO3 (*4)
(as of February 2016)

**Compatible lens :
and optional parts**
(as of February 2016)

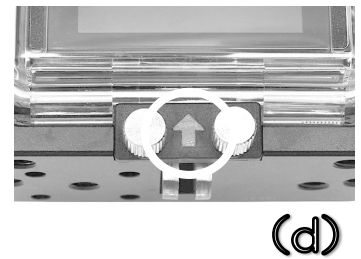
- SD Mount Lens
 - INON「UFL-G140 SD」underwater semi fisheye lens (*2)
 - INON「UCL-G165 SD」underwater wide close-up lens (*2)
 - Compatible products attached on the [top] of this cage (*5)
 - INON 「Direct Base III」, 「Z Joint」, 「Z Adapter MV」 (*6)
 - Compatible products attached on the [bottom] of this cage
 - INON 「Direct Base III」, 「Z Joint」, 「Z Adapter MV」, 「Z Adapter II」, 「Z Adapter」 (*7), 「Grip Base D4」, 「D Holder」 (*8)
- *1: When using on land, set FOV mode other than 「Wide」 or use without the SD Mount Cage to prevent vignetting observed mainly in Ultra Wide mode even without an attachment lens. (No vignetting underwater)
- *2: 「UFL-G140 SD」 and 「UCL-G165 SD」 are designed for underwater use only and not usable on land.
- *3: Depending on tripod head design, some tripod/monopod may not fit to this product. Check if your tripod head can hold this product before actual use.
- *4: Compatible housing is 「Dive Housing (60m/197ft)」. The 「Standard Housing (40m/131ft)」 packaged with 「GoPro® HERO3+」 is **not** compatible. (「GoPro® HERO3」 is packaged with the 「Dive Housing」)
- *5: It is necessary to use packaged 「M6×12 Cap Screw」 instead of original fixing screw of the adapter or use 「M6 Spacer」 on the original fixing screw to prevent direct contact with combined dive housing. Refer to 「Installing accessories」 section in this manual for detail.
- *6: 「Z Adapter II」 and 「Z Adapter」 cannot be attached on the top of the cage due to their design. (They can be attached on the bottom of the cage)
- *7: Combined 「Z Adapter MV」, 「Z Adapter II」 or 「Z Adapter」 will have limited movable range due to bottom design of this cage.
- *8: It is necessary to use packaged 「M6×16 Cap Screw」 to prevent direct contact with combined dive housing.

Installation method: Set your GoPro® in genuine Dive Housing. Optional 「LCD BacPac™」 or 「Battery BacPac™」 is usable with this product.

Separate preinstalled Upper/Lower Fixing Plates from the SD Mount Cage by loosening knurled screws **(a)** then slowly put the dive housing in the SD Mount Cage all the way **(b)**.



Next put back removed Upper/Lower Fixing Plates on the SD Mount Cage and partially fix them with knurled screws with correct orientation (not inside out or upside down) **(c)**. The arrow on the Lower Fixing Plate has to point up **(d)**.



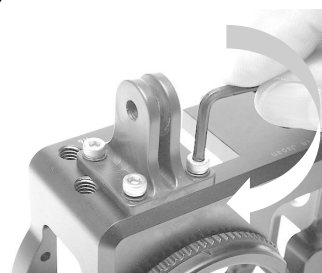
Completely tighten four knurled screws evenly to fix the dive housing **(e)**. Make sure the dive housing is not slant inside of the cage as it will create vignetting when using attachment lens.



Installing accessory:

“Male Adapter (GoPro®)” 【top/bottom】

As show in the right image, the Male Adapter (GoPro®) can be attached either on the top or bottom of the cage. Fix the adapter with supplied 4 x Male Adapter Fixing Screws at 4 x Male Adapter Fixing Holes on the cage by using supplied Allen Wrench.



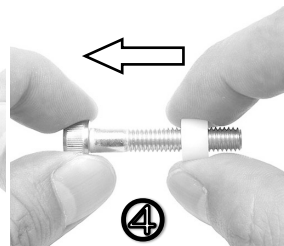
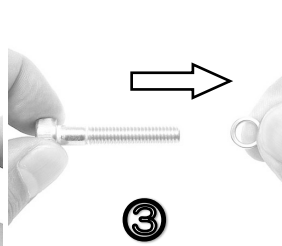
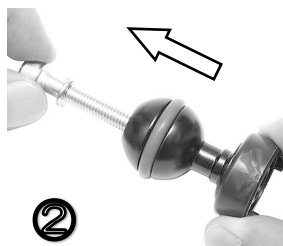
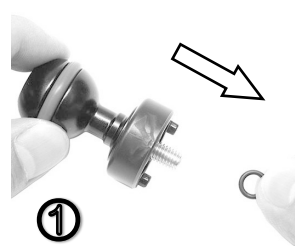
“Direct Base III” 【top/bottom】

The Direct Base III is directly attached on the bottom of the cage at “M6 Screw Hole” shown in the right image.

When installing on the top of the cage at “M6 Screw Hole”, make sure to use supplied “M6 Spacer” to prevent damage on the dive housing. Follow below procedure to install the “M6 Spacer”.



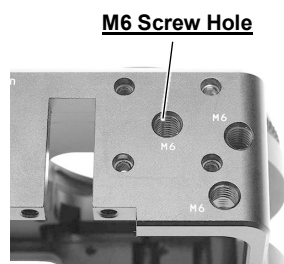
- ① Remove retaining O-ring from the bottom of the Direct Base III.
- ② Pull out the cap screw/spring washer from the Direct Base III.
- ③ Separate the cap screw and spring washer. Keep the removed spring washer as it is necessary when installing the Direct Base III on another product.
- ④ Install the supplied 「M6 Spacer」 on the removed cap screw and put them back on the Direct Base III then attach the removed retaining O-ring on the screw shaft.



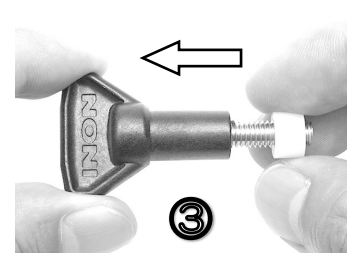
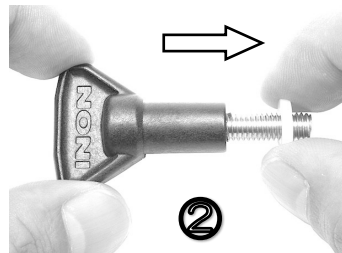
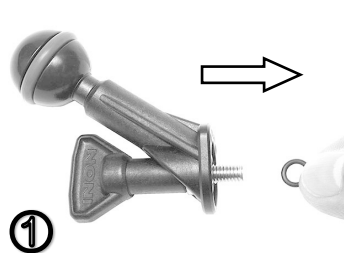
“Z Adapter MV” 【top/bottom】

The Z Adapter MV can be directly attached on the bottom of the cage at “M6 Screw Hole” shown in the right image.

When installing on the top of the cage at “M6 Screw Hole” as shown in the right image, it is necessary to use supplied “M6 Spacer” to prevent damage on the dive housing. Follow below procedure to install the “M6 Spacer”.



- ① Remove retaining O-ring from the bottom of the Z adapter MV
- ② Pull out the white washer from the thumbscrew.
- ③ Install the supplied 「M6 Spacer」 on the thumbscrew and put them back on the Z Adapter MV then attach the removed retaining O-ring on the screw shaft.



“Z Adapter II”, “Z Adapter” 【bottom only】

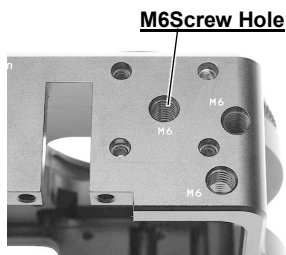
Directly attached on the bottom of the cage at “M6 Screw Hole” as same as Z Adapter MV installing method as mentioned above (※Moveable range of the adapter is limited)

Not attachable on the top of the cage due to bottom design of these adapters.

“Z Joint” 【top/bottom】

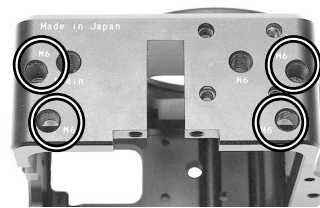
The Z Joint can be directly attached on the bottom of the cage at “M6 Screw Hole” shown in the below image.

When installing on the top of the cage at “M6 Screw Hole” as shown in the right image, it is necessary to replace the original adapter screw with supplied “M6 x 12 Cap Screw” to prevent damage on the dive housing.

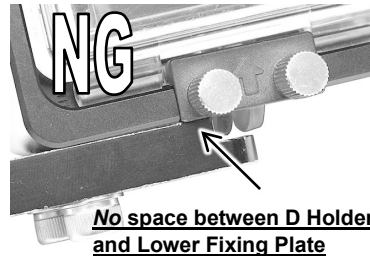


“D Holder” 【bottom only】

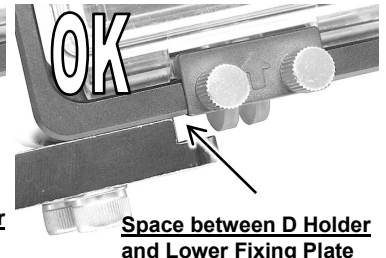
The D Holder is directly attached on the bottom of the cage at “M6 Screw Holes” shown in the right image. It is necessary to replace original fixing screws with supplied “M6 x 16 Cap Screws” to prevent damage on the dive housing.



When installing the D Holder, keep space between the edge of the D Holder and the Lower Fixing Plate as per right image “OK” to prevent damage on the Lower Fixing Plate or knurled screws.



No space between D Holder and Lower Fixing Plate



Space between D Holder and Lower Fixing Plate

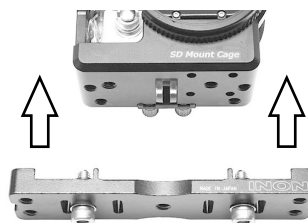
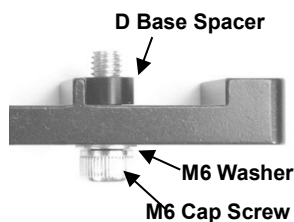
D Holder can be attached on the cage at two different angles as in right images.



“Grip Base D4(D Base·SPS)” 【bottom only】

Follow below procedure which is same as when attaching the Grip Base D4 on an INON Mount Base.

- ① Remove Main Plate, Sub Plates and 1/4 Tripod Screw from 「D Base・SPS」. Put M6 Cap Screw, M6 Washer and D Base Spacer (supplied with the Grip Base D4) on the 「D Base・SPS」 as in the below image.
- ② Fasten the 「D Base・SPS」 on the cage at 2 x “M6 Screw Holes” located at outer side by an Allen Wrench.



Installing attachment lens

Refer to respective instruction manual.

- Maintenance** :
- Whenever installing Upper/Lower Fixing Plates, adapter or base on the cage, make sure to apply a thin film of grease on the edge of the threaded screw shaft to prevent knurled screws/fixing screws from anchoring due to salt build-up.
 - After using, soak in fresh water to dissolve remaining salt or remove dirt and dry it in shaded and well-ventilated area. Never apply flame or direct heat to this product or damage may result.
 - DO NOT clean with organic solvent like alcohol, benzene or thinner and oil and fat containing/chemical material like rust inhibitor, lubricant, polish, detergent to avoid damage/deformation/degradation of this product (especially polyoxymethylene parts).
 - Remove dive housing from the SD Mount Cage when not using more than one week to avoid damage/deformation of compatible product resulting from continuous pressure.



- Handling precautions** :
- Before/after using, make sure that all knurled screws (holding Upper/Lower Fixing Plates) have been completely tightened. Poor tightening of these knurled screws may result in accidental separation of Fixing Plate(s) or coming off of the dive housing.
 - It is necessary to pull out the dive housing from the cage to take out the camera or replace the backdoor. Pull out the dive housing from the cage when you need to change camera battery, remove storage card or replace the backdoor.
 - Please note that camera/housing manufacture has no concern with installation of this product on housing. DO NOT inquire camera/housing manufacture about the installation. Also please note that you have to take full responsibility for the installation.
 - The installation of this product may void camera/housing warranty even warranty period has not yet expired. Please check housing user manual/warranty certificate for detail of warranty condition of your housing.
 - INON Inc. cannot take any responsibility for any trouble/damage (damage to housing/housing accessories /camera) resulting from the installation.
 - Should you have trouble like flooding caused by the installation, INON Inc. cannot take any responsibility for incidental damage (relevant expense to take a shot etc.)
 - Please perform the installation only if you can accept above conditions.

- Options** :
- UFL-G140 SD Underwater Semi-fisheye Conversion Lens
An underwater semi-fisheye conversion lens to use with the 「SD Mount Cage」 or 「SD Front Mask」 to increase native coverage of GoPro® camera underwater 94 degrees to ultra wide 『140 degrees』. The lens also shorten minimum focusing distance to capture a subject from only a few centimeters away from a subject.



- UCL-G165 SD Underwater Wide Close-up Lens
An underwater wide close-up lens to use with the 「SD Mount Cage」 or 「SD Front Mask」 to drastically shorten minimum focusing distance to enable close-up/high magnification imaging by GoPro® camera. This lens is designed to widen native underwater coverage of GoPro® camera from 「94 degrees」 to 『110 degrees』 to have more depth of field not as like a standard close-up lens.



- Direct Base III
A ball-joint adapter to hold arm product with optional clamp on top/bottom of this product.



- Z Adapter MV
A ball-joint adapter attachable on the top/bottom of the cage. Since the ball-joint is protruded at an angle against its base, the ball-joint can be installed at different angles by rotating the adapter.



- Z Joint

An adapter attachable on the bottom of this product to attach on the "「YS Adapter」 compatible arm" products such as 「Shoe Base」, 「D Holder」 or 「YS Adapter MV」etc.



- D Holder

Maximum two D Holders can be attached on the bottom of the cage to support simple single lighting as well as multiple-lighting system with two of LED flashlights on both sides.



- Grip Base D4

Equipped with newly developed "SPS(Slide Plate System)" supporting installation on many of housings including this cage without any adapter. Combination with an optional 「D holder」 upgrades the system to multiple-lighting system.



- SD Front Mask STD

A lightweight/compact component for the GoPro® genuine standard housing (depth rating: 40m/131 ft.) and 「HERO」 「HERO+」 「HERO+LCD」. (*genuine dive housing (depth rating: 60m/197 ft.) is not compatible.) Equipped with "SD Mount" bayonet system with locking feature for compatible INON SD Mount lenses and designed to have packaged adapter on its bottom to attach an arm/tripod/monopod.



- Male Adapter (GoPro®)

A set of ⑪, ⑫ and ⑬ in the packaged accessory shown on the first page of this manual. Necessary if you need to attach GoPro® accessory on the top and bottom of this cage

INON SD Mount Cage for HERO3/3+/4 Specifications [*1]	
Model	SD Mount Cage for HERO3/3+/4
Size (※excluding protruded parts)	88.5mm/3.5in.(W)×79.9mm/3.1in.(H)×51.3mm/2.0in.(D)
Weight	183g/6.5oz (air) / approx.114g/4.0oz (underwater)
Material/finishing	Corrosion-resistant aluminum alloy/rigid alumite, POM etc.

*1 Subject to change without prior notice

*2 GOPRO, HERO, BacPac, the GOPRO logo, and the GoPro Be a Hero logo are trademarks or registered trademarks of GoPro, Inc.

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