

INON

INON Dome Lens Unit IIIA / Dome Lens Unit IIIG

Thank you for purchasing INON product.

The INON *Dome Lens Unit III* is exclusively designed for INON UWL-95S XD/UWL-95 C24 series lens to increase angle of view underwater and shorten minimum focusing distance comparing to sole use of wide lens.

This product is not usable by itself and has to be used with compatible wide lens. As a nature of this product to keep airtight by self-assembly, please read through this user manual carefully before assembling this product.

Features

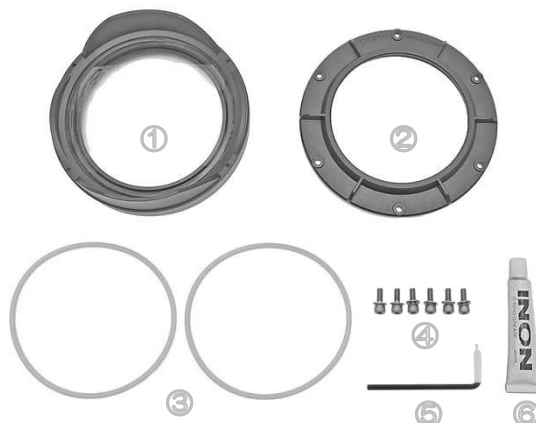
- Installing the *Dome Lens Unit III* on the UWL-95S XD/UWL-95 C24 series lens increases the native underwater coverage of approx. 95° to **approx. 141°**. Even using for a compact digital camera equipped with a large image sensor won't have vignetting delivering vivid **semi-fisheye images**.
- Different dome materials; either *Dome Lens Unit IIIA (acrylic)* or *Dome Lens Unit IIIG (glass)* is available to select when purchasing. It is possible to change original dome material to the other material when repairing as both *Dome Lens Unit III* use same dome frame.
- Thanks to carefully designed optics, the *Dome Lens Unit III* establishes ultra wide angle of view and dramatically close minimum focusing distance together working well even when shooting **ultra wide macro imaging**.

Compatible lens :

- (as of September 2022)
- UWL-95S XD
 - UWL-95 C24 M52
 - UWL-95 C24 M67 Type1/Type2

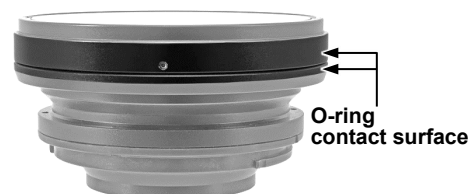
Package contents :

- Dome Lens Unit III (with integrated protector) ① ×1
- Dome Lens Unit III Base ② ×1
- O-ring (Yellow) ③ ×2
- M4x12 SEMS Socket Head Screw ④ ×6
- Special hex wrench ⑤ ×1
- INON Grease ⑥ ×1



Wide Lens Inspection

- **Check your UWL-95S XD/UWL-95 C24 to make sure there is no scratches, other surface defect, debris on the front lens frame especially highlighted area (indicated by arrow in the right image).** If you find any damage on this area, contact your purchasing dealer for inspection and possible repair. Any irregularity on this area will cause flooding of the *Dome Lens Unit III*.
- Check condition of your UWL-95S XD/UWL-95 C24 to make sure there is no heavy spotting or discoloration on the subject side lens. Heavy spotting/discoloration can affect your image and it may necessitate to replace the lens element. Contact your purchasing dealer for inspection and replacement if this is the case.



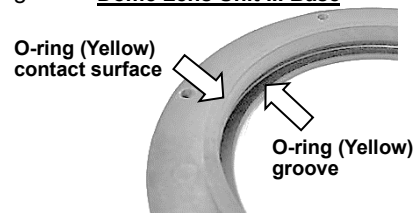
Preparation

- *Dome Lens Unit III*, *Dome Lens Unit III Base* and UWL-95S XD/UWL-95 C24 **must be completely dry before assembly** in order to prevent dew condensation during use.
- **Clean lens surfaces** of the *Dome Lens Unit III* and UWL-95S XD/UWL-95 C24 as necessary.
- Check and confirm **there is no scratches or debris on O-ring Contact Surface/O-ring groove** of the *Dome Lens Unit III* and *Dome Lens Unit III Base* (as shown in right images).
- Check and confirm **there is no cuts, cracks or debris** on the O-ring (Yellow).

Dome Lens Unit III



Dome Lens Unit III Base



How to assemble :

• **Attach Dome Lens Unit III on UWL-95S XD/UWL-95 C24**

To avoid dew condensation during use of assembled lens unit, **assemble in a cool and dry room.**

(A) Place the *Dome Lens Unit III* with its protector side facing down.

(B) Gently put the *UWL-95S XD/UWL-95 C24* on the *Dome Lens Unit III* and securely fit them with no rattle.

(A)



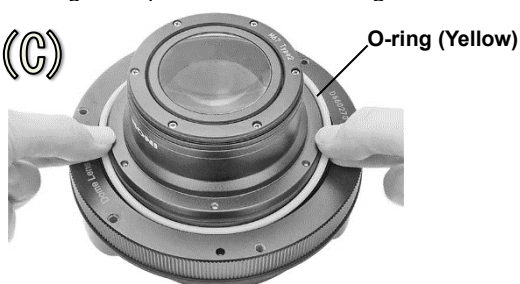
(B)



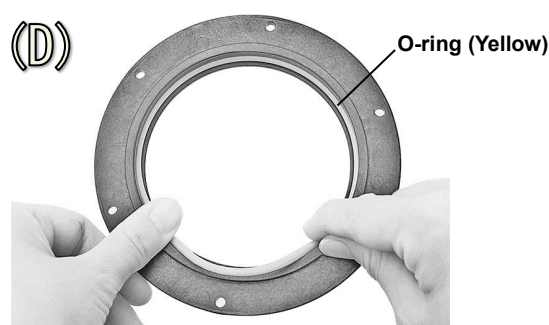
(C) Apply thin film of INON grease on the O-ring (Yellow) and spread uniformly by fingers. Then install the O-ring (Yellow) in the gap between *Dome Lens Unit III* and *UWL-95S XD/UWL-95 C24* as show in below (C) **Make sure the O-ring is seated completely and uniformly without being twisted.**

(D) Apply INON Grease to the other yellow O-ring and set it in the groove on the inside of the Dome Lens Unit III Base. Install the O-ring evenly all the way to the bottom of the groove while pressing it with fingers to prevent it from coming out.

(C)



(D)



Be sure to put the wide lens before installing the yellow O-ring

(E) Put the *Dome Lens Unit III Base* on the *Dome Lens Unit III/UWL-95S XD/UWL-95 C24* so that screw holes on the *Dome Lens Unit III Base* and those on the *Dome Lens Unit III* are matched.

(F) Install supplied cap screws in screw holes on the *Dome Lens Unit III Base* and **partially** tighten them by supplied Allen wrench until they are lightly stopped. **DO NOT** tighten too much as it could hinder protector position adjustment.

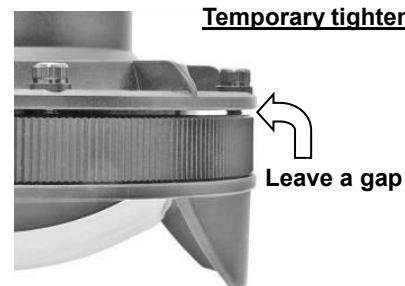
(E)



(F)



Temporary tightening



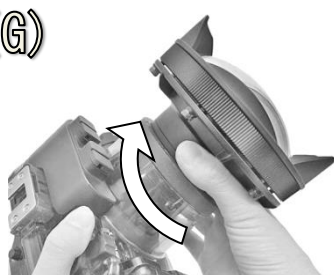
• **Adjust/Fix Protector Position**

(G) Attach the lens unit on a camera housing completely. When screwing the combined lens unit into the housing, make sure to grasp *UWL-95S XD/UWL-95 C24* lens barrel.

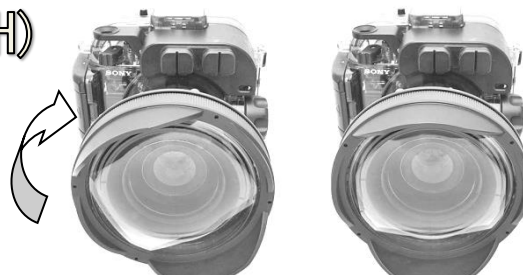
(H) Slowly rotate* the *Dome Lens Unit III* **only to same direction when attaching the combined lens unit on the housing** so that the large flanges locate at the 12:00 and 6:00 o'clock positions. **DO NOT** rotate the *Dome Lens Unit III* too fast to avoid misalignment or twist of the installed O-ring underneath.

* **DO NOT** keep rotating the *Dome Lens Unit III* as it may overtighten and anchor the combined *UWL-95S XD/UWL-95 C24* lens on the housing.

(G)



(H)



Fasten the Dome Lens Unit III Completely

- (I) Grasping the UWL-95S XD/UWL-95 C24 lens barrel, unscrew and dismount the lens unit being careful not to change shade/protector position relative to the lens. Tighten the six SEMS screws little by little by the special hex wrench, **alternating between screws opposite each other, in a star pattern, until there is no more gap between the Dome Lens Unit III and Dome Lens Unit III Base.**



When tightening SEMS screws...

- **Use the long side of the special tool, not the short side (the side covered with the yellow tube), and tighten it with proper torque.**
- **Be careful not to tighten unevenly, as this may cause flooding.**
- **Stop tightening when screws stop lightly as over-tightening may cause damage to the Dome Lens Unit III Base.**

Dome Lens Unit III and IWL-95S XD/UWL-95 C24 must be completely dry when assembling and assembly must be conducted in cool and dry room in order to prevent dew condensation during use.

Leak Test

- : • Before using assembled lens unit, **always confirm that the assembly has been conducted properly and assembled lens unit is watertight by conducting a "Leak Test."** **Immerse the assembled lens unit in a bath tub or tank filled with water (30°C /86°F or below). No water should come between the Dome Unit III and UWL-95S XD/UWL-95 C24.**

Usage

- : • **Attaching to Housing**
Refer to UWL-95S XD/UWL-95 C24 user manual for detail of installation method. Make sure no air bubbles are trapped between the lens rear element and the housing port surface. If necessary, **install combined lens unit underwater**, or **remove the combined lens unit from the housing and install again underwater** to allow air bubbles to escape.
- **Setting Camera Zoom Position**
Set camera zoom at wide end. Depending on the camera and housing used, there may be vignetting in the image corners. If this is the case, crop the image when editing or zoom in just enough to eliminate the vignetting.

Maintenance

- : • After using, **always remove the assembled lens unit from housing**, soak in fresh water (at 30°C/86°F or below) for several hours to dissolve salt deposits, **blow off water droplets with compressed air, wipe off any remaining moisture on the lens surfaces** and leave in a shaded and well ventilated area to dry. (It may take several days to completely dry).
- **After completely drying**, remove the Dome Lens Unit III from the UWL-95S XD/UWL-95 C24 following the reverse procedure of the assembly. Clean the O-ring, O-ring contact surfaces, O-ring grooves and grease screw holes on the Dome Lens Unit III.
- Store in shaded and well ventilated area. **DO NOT** store in areas with solvents or chemical fumes, with high humidity, high ozone or extreme temperature fluctuations. Storage in such conditions may lead to water leakage or other damage such as lens surface degradation, discoloration or mold.



Handling Precautions:

- Due the inherent design and characteristics of the *Dome Lens Unit III* as an add-on accessory to the *UWL-95S XD/UWL-95 C24* wide lens, even when the camera zoom position is optimum, compared to the *UWL-95S XD/UWL-95 C24* alone, image quality may be somewhat less, in particular at the edges. **Closing the aperture size as small as practically possible can improve image quality.**
- **After using, always make sure no water (saltwater, fresh water) droplets or moisture remains on the lens surfaces. Never put wet lens covers on the Dome Lens Unit III.** Doing so may cause degradation of the lens surfaces, or cause spotting or discoloration. Slight spotting or discoloration will have minimal adverse effect on an image, but heavy surface degradation would necessitate replacing the damaged dome lens element. Contact purchasing dealer if you require a dome lens replacement.
- **Especially if air temperature is relatively high where remaining water on the lens surface will be vaporized very quickly, the lens has high chance to get spot/burn with remaining water on the lens surface even for a short period of time.**
- **DO NOT disassemble the Dome Lens Unit III itself.** Doing so could cause damage and subsequent flooding, and will void warranty. Also, when removing the *Dome Lens Unit III/UWL-95S XD/UWL-95 C24* assembly from the housing **do not grasp and twist the Dome Lens Unit III but hold the middle area of the UWL-95S XD/UWL-95 C24 lens barrel.** Grasp this part and rotate to remove. Applying excess torque or rotational force to the *Dome Lens Unit III* could cause loosening between the *Dome Lens Unit III* and *UWL-95S XD/UWL-95 C24* or internal parts of the *UWL-95S XD/UWL-95 C24* that retains optical element, and subsequent flooding.
- **DO NOT** subject *Dome Lens Unit III* (or combined unit with the *UWL-95S XD/UWL-95 C24*) to impact shocks or vibrations, which can lead to damage and possible flooding.
- **DO NOT** leave the *Dome Lens Unit III* (or combined unit with the *UWL-95S XD/UWL-95 C24*) exposed to strong sunlight, especially on such surfaces as a boat deck, car dashboard etc. as the optical elements will collect and concentrate the sunlight, creating a fire hazard.
- **NEVER** attempt to see the sun or strong light source through the *Dome Lens Unit III* (or combined unit with the *UWL-95S XD/UWL-95 C24*) or camera to avoid irreparable injury to the eyes.
- **DO NOT** expose the *Dome Lens Unit III* (or combined unit with the *UWL-95S XD/UWL-95 C24*) to extreme heat, such as the inside of a hot car, or in hot direct sunlight, such as a beach or boat deck. Doing so may cause damage and subsequent flooding.
- The *Dome Lens Unit III* will block the camera's built-in flash light from reaching the subject. We recommend using an external strobe such as the INON Z-330 etc.

Options

- **Dome Port Cover S**
Neoprene cover usable underwater. Elastic material protects lens surface during transportation or when installing/removing. Recommend to put on the lens whenever not in use.
- **Replacement O-ring** (for *Dome Lens Unit III* for *UWL-95S XD/UWL-95 C24*)
1 pc of ③ in the product image on the first page.



INON Dome Lens Unit IIIA Specifications*

Outer diameter	φ 124.8 mm/4.9 in
Length (standalone)	47.8 mm /1.9 in
(with UWL-95S XD)	76.8 mm/3.0 in
(with UWL-95 C24)	76.5 mm/3.0 in
Weight (standalone on land)	272 g/9.6 oz
(with UWL-95S XD underwater)	404 g/14.3 oz
(with UWL-95 C24 underwater)	[M52] 412 g/14.5 oz, [M67] 420 g/14.8 oz
Depth rating	60m/196.9ft
Body material/finishing	Corrosion resistant aluminum alloy/black rigid alumite/ polycarbonate etc.
Glass material/finishing	Optical acrylic/anti reflection multi-coating (inner surface)

INON Dome Lens Unit IIIG Specifications*

Outer diameter	φ 124.8 mm/4.9 in
Length (standalone / with UWL-95 C24)	47.8 mm /1.9 in, 76.5 mm/3.0 in
(with UWL-95S XD)	76.8 mm/3.0 in
(with UWL-95 C24)	76.5 mm/3.0 in
Weight (standalone on land)	372 g/13.1 oz
(with UWL-95S XD underwater)	489 g/17.2 oz
(with UWL-95 C24 underwater)	[M52] 497 g/17.5 oz, [M67] 505 g/17.8 oz
Depth rating	60m/196.9ft
Body material/finishing	Corrosion resistant aluminum alloy/black rigid alumite/ polycarbonate etc
Glass material/finishing	Optical glass/anti reflection multi-coating (inner surface)

* Specification is subject to change without prior notice.

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