

INON UCL-165 XD

Close-up 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

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INON UCL-165 XD Underwater Close-up Lens

Thank you for purchasing INON products.

INON UCL-165 XD is a wet lens designed for underwater (*1) use to easily acquire ultra-high magnification image by simply attaching on housing port of compatible digital camera via INON optional adapter. **Optional INON XD Mount** is required to use the UCL-165 XD.

Main Features

- This lens shortens minimum focus distance underwater supporting high magnification/close-up image. Also, the lens is designed to work effectively both above and below water.
- The lens is constructed of two plano-convex high quality optical glass elements in two groups. Compared to lenses using just one double-convex element, the UCL-165M67 design and construction minimizes optical aberrations. Both elements are anti-reflection coated on the inside surfaces to bring out optimal performance of master lens.
- Lockable bayonet **INON XD Mount** compatible to support friendly and speedy lens exchange underwater.
- It is possible to stack with INON M67 series close-up lens, *UCL-165M67/UCL-330* to acquire even higher magnification macro imaging.

Compatible products : • INON XD Mount series

Package contents : • UCL-165 XD Close-up Lens ①
• Rear Lens Cap ②
• Anti Ghost Sticker x1



Installation method : • Match **Guide A [Lens]** with **Guide A [XD Mount]** as in below left image and put the male bayonet mount of the lens in the female bayonet mount of the XD Mount.
• Turn the lens clockwise until **Guide A [Lens]** is coupled with **Guide B [XD Mount]** where you should feel and hear clicking.
• When removing the lens, with pressing the lock lever, rotate the lens counterclockwise.

*Product images use UWL-95S XD but installation methods are the same.



- When stacking an INON M67 series close-up lens on this product, make sure to apply a little amount of grease (grease for housing) on the female threaded part in front of this product and male threaded part of the combined M67 series close-up lens to prevent salt build-up or electrical corrosion between this product and M67 series lens. Refer to M67 series close-up lens user manual for detail.
- Once submerged, remove the lens underwater and shake it well to drop trapped bubbles especially from the rear lens surface then install the lens on the XD Mount again following same procedure.

Precautions : • Generally, a close up lens shortens camera's minimum focusing distance (shorten combined (master lens + add-on lens) minimum focusing distance). While the UCL-165 XD allows you to shoot a subject closer achieving a larger image, distant subject may not get in focus depending on angle of view or aperture setting. Also using the UCL-165 XD with a camera having relatively close focusing distance, may not be able to shorten minimum focusing distance and benefit would be "shorten focusing distance in particular zoom position where camera cannot work in the minimum focusing distance" or "shorten minimum focusing distance without using macro mode".

• After using, never put the lens caps on or put the lens in the 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. 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.

- Depending on housing or shooting conditions (like shooting distance/angle of view), the lens may block the camera's built-in flash. If an external strobe is not used in such case, it would be recommend shooting with ambient light only not using the built-in flash.
- Supplied "Anti Ghost Sticker" can suppress flare/ghost causing by reflection around peripheral part of the lens front. Please refer respective manual for detail of this sticker.
- Only INON M67 series close-up lens, UCL-330 or UCL-165M67 can be stacked on this product. Any other lens including UCL-165 XD cannot be combined.
- The UCL-165 XD standalone is usable with camera zoom setting middle range to telephoto side underwater. Using In air or with camera zoom setting wide side will have vignetting. When combined with M67 series close-up lens, usable zoom range will be narrow down to telephoto side.
- Generally, it is recognized that the more lenses are stacked, the less image quality is.
- 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, especially on such surfaces as a boat deck, car dashboard etc. 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, especially on such surfaces as a boat deck, car dashboard etc. to prevent damage and subsequent flooding.
- It is recommended to carry the lens in optional carry pouch to prevent accidental shock just before attaching on camera housing.

Maintenance

- After using, always remove UCL-165 XD from XD Mount. Soak the UCL-165 XD in fresh water (below 30°C/86°F) for several hours to dissolve any remaining salt, then blow off water on the both lens surface by compressed air etc. Leave the lens at shaded and well-ventilated area to dry with no water drops on the both lens surface (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.
- Do not allow any water to dry on lens surfaces, as water spots or discoloration may result.

Optional accessories:

- XD Mount for PT-056/058/059
- XD Mount for URX-100A
- XD Mount for M67 Port

Lens mount equipped with INON "XD mount" lockable bayonet system to attach INON XD mount series lens on compatible housing.



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



- XD Lens Holder Shoe Base
- XD Lens Holder M5
- XD Lens Holder S

Lens holders to hold XD Mount series lens on compatible products such as cold shoe mount of camera housing, INON Arm/Float Arm product etc. to support speedy lens exchange underwater.



INON UCL-165 XD Close-up Lens Specifications [①]	
Model	UCL-165 XD
Size	φ77.9mm (3.1in.) × 22.2mm (0.9in.)
Weight	Underwater: approx. 90g (3.2oz) / Air: 154g (5.4oz)
Lens Mount	INON XD Mount
Depth rating	60m (197ft)
Body material / finishing	Corrosion-resistant aluminum alloy / rigid black almite, POM etc.
Lens material / finishing	Optical glass / both side coating
Construction	2 groups 2 elements
Focal length[②]	Underwater: 165mm/Air: 135.4mm

[①] Specification is subject to change without prior notice

[②] Focal length of the lens itself and not combined focal length with camera lens.

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