

INON

UCL-165LD

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-165LD Close-up Lens

Thank you for purchasing INON product.

INON UCL-165LD Close-up Lens is an attachment lens to easily acquire high magnification image by simply attaching on housing port of compatible digital camera via INON attachment option. The lens can be attached/detached underwater.

Optional INON 28LD Mount Base is necessary to use UCL-165LD.

The UCL-165LD is not compatible with AD Mount Base/28AD Mount Base/28AD Port/M67 Mount Base.

Main Features

- The UCL-165LD Close-up lens has a 165mm focal length and makes high magnification close-up photography possible by shortening the close focus distance, allowing the photographer to get closer to the subject. 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-165LD design and construction minimizes optical aberrations. Both elements are anti-reflection coated on the inside surfaces to enhance master lens performance.
- **INON 28LD Mount** compatible to have bayonet and lockable system giving you greater flexibility of handling underwater as well as secure lens installation.
- It is possible to stack with INON M67 series close-up lens (「UCL-165M67」/「UCL-330」) to acquire even higher magnification macro imaging.

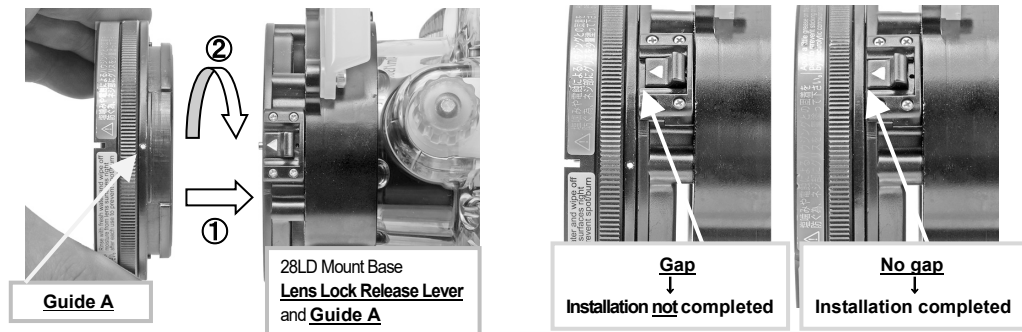
Package includes :

- UCL-165LD Close-up Lens
- Lens Cap (camera side×1)
- Anti Ghost Sticker x 1
- This User Manual

Compatible housing;
28LD Mount Base
(as of April 2011)

- Canon WP-DC38 + INON 28LD Mount Base·DC38
- Panasonic DMW-MCFT3 + INON 28LD Mount Base·MCFT3

- Installation Method** :
- Remove lens cap by turning it counterclockwise. Apply a little amount of grease (supplied with an underwater case) on the leading edges of the bayonet as shown in the image (total three points).
 - Put this product on the 「28LD Mount Base」 so that 『Guide A』 of this product is coupled to 『Guide A』 of the 「28LD Mount Base」 (①). Rotate the this product clockwise (②) until the lens lock release lever of the 「28LD Mount Base」 moves back to the original position where you should feel and hear clicking.



- 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.
- It is necessary to fill the space between UCL-165LD and housing port with water, so attach UCL-165LD underwater or partially unscrew the lens allowing inside air to escape then retighten.

Precautions:

- Generally, a close up lens shortens the camera's close focusing distance. With the UCL-165LD, the photographer can place the camera closer to the subject, achieving a larger image. On the other hand, depending on the angle of view and effective aperture, it may be more difficult to obtain complete depth of field on a distant subject. Also with a camera having relatively small close focusing distance, the difference of close focusing distance with UCL-165LD comparing to the case without UCL-165LD will not be so obvious and advantage to attach the lens will be 『shorten focusing distance in particular zoom position where camera can not work in the close focusing distance』 or 『shorten close focusing distance without using macro mode』.
- **After using, never put the lens caps on or place 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 subject distance / angle of view), the lens may block the camera's built-in strobe from illuminating the entire image. In such cases we recommend to shoot with ambient natural light only or use an external strobe, such as the INON D-2000 connecting via INON 「Clear Photo System」. **Without using Clear Photo System may cause limitation on shooting situations or problem on an image.** Refer to the boxed column below for detail.
- Supplied 「Anti Ghost Sticker」 could suppress flare/ghost causing by reflection around peripheral part of the lens front.
- Only INON M67 series close-up lens (「UCL-330」 / 「UCL-165M67」) can be stacked on this product. **Any other lens including UCL-165LD cannot be combined.**
- The UCL-165LD 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 as more lenses are stacked, loss of image quality will result.
- 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-165LD from 「28LD Mount Base」.** Soak the UCL-165LD 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 the lens cap 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 Accessory:

- **Neoprene Carry Pouch S**
Neoprene carry pouch to be used underwater. Protect lens from shock and abrasion while in transport and storage, as well as while carrying underwater.
- **LD Lens Holder W**
- **LD Lens Holder S**
- **LD Lens Holder for Float Arm**
Attaches to INON Arm/Float Arm to hold this product to help easy handling of multiple lenses underwater. In combination with 「AD-LD Mount Converter for UCL-165AD」 or 「M67-LD Mount Converter for UCL-330/165M67」, other mount close-up lens can be carried as well.



INON Close-up Lens Specifications(※)	UCL series
Type	UCL-165LD
Outer Diameter	φ 75.2mm (3.0in.)
Length	21.9mm (0.9in.)
Mount	INON 28LD Mount
Weight (air / underwater)	133g (4.7oz) / approx. 72g (2.5oz)
Depth rating	60m (196.9ft)
Body material/ finishing	Corrosion resistant aluminum alloy / Black hard alumite, PC
Lens material / finishing	Optical glass / inner antireflection coating
Construction	2 elements 2 groups
Focal length (air / underwater)	135.4mm(5.3in.) / 165mm(6.5in.) (※※)

※ Subject to change without prior notice.

※※ For UCL-165LD itself. Not in combination with camera lens.

INON Inc.

2-18-9, Dai, Kamakura

Kanagawa 247-0061

E-mail support@inon.co.jp

Fax. +81(0)467-48-2178

URL <http://www.inon.jp/>

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※ **When using built-in flash with attachment lens without Clear Photo System** · ·

When using built-in flash with attachment lens being mounted and Clear Photo System is not used, **there may be possibility to have ghost/flare in an image** depending on shooting condition/camera housing/Mount Base being used.

This is because built-in flash light gets into the attachment lens from its mounting part. In the case, **it is recommended to use External Strobe with Clear Photo System.** If you have to use built-in flash only by necessity, ghost/flare could be reduced by preventing built-in flash light from being get into attachment lens from its mounting part. **INON Inc. assume no responsibility whatsoever for any direct/indirect damage resulting from user's modification on camera system.**

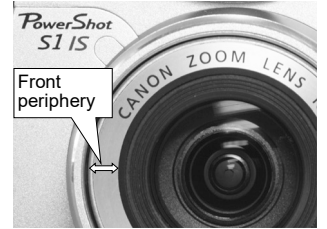
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Anti Ghost Sticker

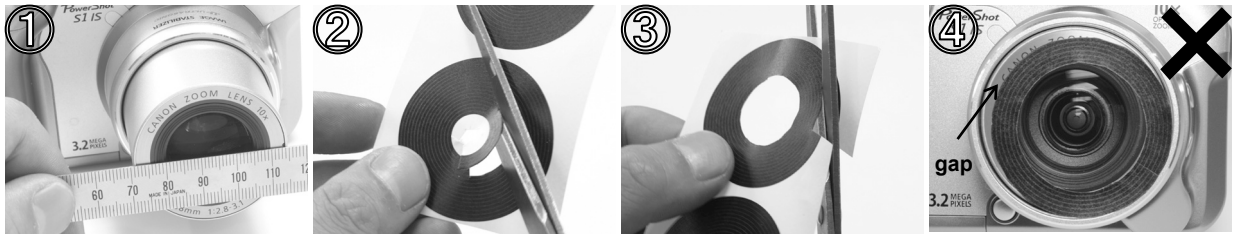
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By sticking "Anti Ghost Sticker" around the camera master lens (NOT on the lens but on its lens barrel), reflection of lens specification print or flare/ghost could be reduced especially when attachment lens being used.

- Compatible digital camera:**
- Outer diameter of 「Camera Lens Front Periphery (*1)」 is less or equal to 44mm (1.732in.) and inner diameter is greater or equal to 12mm (0.4724in.) and satisfy following conditions:
 - A) 「Camera Lens Front Periphery (*1)」 does not have any coating/painting for antireflection.
 - B) 「Camera Lens Front Periphery (*1)」 does have some characters in print or punch mark.
 - (*1) A metal/plastic doughnut shape part which wrap around a camera lens. (see picture above)



- How to apply :**
- Accurately measure outer / inner diameter of 「Camera Lens Front Periphery (*1)」 (see ①).
 - Cut Anti Ghost Sticker out to measured size from inner side(②) then after cut out outer side (③) . Do not cut inner side too much. Otherwise you may have vignetting.
 - Attach the sticker on the 「Camera Lens Front Periphery (*1)」 so that the sticker covers all part of the 「Camera Lens Front Periphery (*1)」 and NOT to cover camera master lens. (④).



Flare/Ghost : Please note that effect of "Anti Ghost Sticker" is depending on camera/housing/shooting condition and "Anti Ghost Sticker" is not universally effective in every situation. Also flare/ghost could be caused by built-in strobe / external strobe / ambient light being through back of camera lens, where "Anti Ghost Sticker" does not work.

Using built-in strobe without "Clear Photo System"

When using only built-in strobe without "Clear Photo System", ghost/flare could be observed. The light from built-in strobe coming through transparent housing/housing lens port may get into attachment lens and reflect inside of attachment lens. This type of flare/ghost can be prevented by using external strobe and "Clear Photo System".

INON Inc.

2-18-9, Dai, Kamakura
Kanagawa 247-0061

E-mail support@inon.co.jp

Fax. +81(0)467-48-2178

URL <http://www.inon.co.jp/>

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