

# INON

# UCL-165 M67

# 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 M67 Close-up Lens

Thank you for purchasing INON product.

INON UCL-165 M67 Close-up Lens is an attachment lens to easily acquire high magnification image by simply screwing on lens port of compatible digital camera housing or M67 Mount Base. The lens can be attached or detached underwater.

### Main features

- The UCL-165M67 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-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.
- It is possible to stack multiple UCL-165M67 lenses to allow for even higher magnification macro imaging, as each lens body has a 67mm threaded mount on the outer rim.

- Package contents:**
- UCL-165M67 Close-up Lens
  - Lens Cap(camera side×1)
  - Anti Ghost Sticker
  - This user manual

- Compatible camera housing**  
(as of August, 2004)
- Olympus 「PT-005」 / 「PT-007」 / 「PT-010」 / 「PT-015」
  - Olympus 「PT-014」 + INON 「M67 Mount Base·PT-014」
  - Olympus 「PT-012」 + INON 「M67 Mount Base·PT-012」
  - Canon 「WP-DC20」 + INON 「M67 Mount Base·DC20」
  - Canon 「WP-DC300」 + INON 「M67 Mount Base·DC300」
  - Canon 「WP-DC200」 / 「WP-DC200s」 + INON 「M67 Mount Base·DC200/200s」
  - Canon 「WP-DC100」 / 「WP-DC500」 + INON 「M67 Mount Base·DC100/500」
  - INON 「DN-800」 / 「DN-880」

- Installation method:**
- Always apply thin film of grease (grease for housing O-ring) on threaded ring of the UCL-165M67 to prevent 「salt corrosion」 or 「electric corrosion」 causing fixation between UCL-165M67 and housing/M67 Mount Base.
  - Screw UCL-165M67 onto housing port / M67 Mount Base. It is necessary to fill the space between UCL-165M67 and housing port with water, so attach UCL-165M67 underwater or partially unscrew the lens allowing inside air to escape then retighten.

- Usage and Precautions**
- Generally, a close up lens shortens the camera's close focusing distance. With the UCL-165M67, 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. In case camera's close focusing distance is relatively short, the UCL-330 may not shorten the camera's close focusing distance but only enables『to shorten camera distance at particular zoom setting where close focusing distance can not be obtained』, or 『to shorten camera's close focusing distance without using macro mode』.
  - Although the lens can be used throughout the complete zoom range of most cameras, and is designed for optimum optical performance with the camera lens set at full Wide position. However, stacking multiple lenses may cause vignetting, depending on the camera system or zooming position. Generally, it is recognized that as more lenses are stacked, loss of image quality will result. Also, when stacking lenses, remember to apply a little grease to all the connecting threads.
  - 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 「Clear Photo System」, there may be limitation on shooting situation or an image may have problem. Please refer to boxed column on the last page for detail.
  - 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-165M67 from housing / M67 Mount Base. Soak the UCL-165M67 in fresh water (below 30 deg C / 86 deg F) for several hours to dissolve any remaining salt, then blow off water on the both lens surface. 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, store out of direct sunlight and well-ventilated are. 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.
  - 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.
  - The lens is constructed with highly weather resistant black O-rings to secure the lens elements. However, if the lens is stored in an area of high ozone, or is exposed to excessive UV light, these O-rings may degrade, developing cracks. If this happens return lens to purchasing dealer for maintenance service.

**Optional Accessories** :

- 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.
- M67 Mount Base ·PT-014
- M67 Mount Base ·PT-012
- M67 Mount Base ·DC20
- M67 Mount Base ·DC300
- M67 Mount Base ·DC200/200s
- M67 Mount Base ·DC100/500  
Mount Base to use INON M67 Mount series attachment lens on a housing which does not equipped with threaded mount of M67/0.75pitch.
- M67Lens Holder S
- M67 Lens Holder W  
Attaches to INON Arm System to hold one(S) or two(W) M67 Mount series lenses to help easy handling of multiple lenses underwater.  
※Maximum attachable number: 1 for Grip Base DII, Arm SS and Arm S.  
2 for Arm M. 3 for Arm L



INON U/W Close-up Lens Specifications(※)	UCL / M67series
Type	UCL-165 M67
Outer Diameter	φ 72mm (2.835in.)
Length	21.6mm (0.85in.)
Thread size / pitch	M67 / 0.75
Weight (air / underwater)	140g (4.518oz)/ approx.73g(2.356oz)
Depth rating	60m (196.9ft)
Body material/ finishing	Corrosion resistant aluminum alloy / Black hard alumite
Lens material / finishing	BK7 / inner coating
Construction	2 elements 2 groups
Focal length (air / underwater)	135.6mm(5.339in.) / 165mm(6.496in.) (※※)

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- ※ Subject to change without prior notice.
- ※※ For UCL-165 M67 itself. Not in combination with camera lens.

**※ 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.

This is because built-in flash light gets into the attachment lens from its mounting part. **In the case, we would recommend to use an 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.

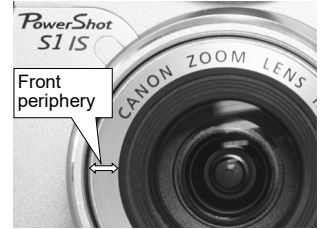
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## Anti Ghost Sticker

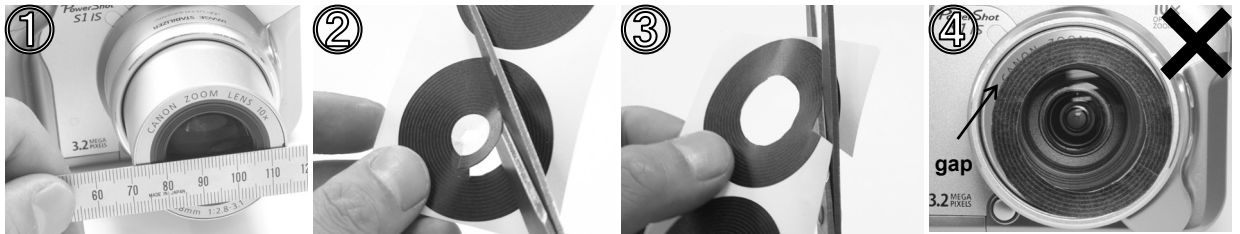
Thank you for purchasing INON products.

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".

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