# INON UWL-S100 ZM80 Wide Conversion 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



# INON UWL-S100 ZM80 Wide Conversion Lens

Thank you for purchasing INON product.

The INON UWL-S100 ZM80 Wide Conversion Lens is a specially designed wet wide conversion lens for particular wide cameras having master lens wider than 28mm (35mm film equivalent) or having super zoom with longer extension. You can get ultra wide underwater imaging with approx. 80mm focal length (35mm film equivalent) setting on the camera. This product requires **compatible** INON \( \text{M67} \) Lens Adapter Base \( \text{J} \) Lens Adapter Base \( \text{Jandapter Base} \) and appropriate \( \text{Mount Converter} \) depending on type of your Lens Adapter Base. Please see "Compatibility Chart" in this manual to check if your camera/housing is supported.

#### **Product features**

- Designed to have 100° view angle underwater when zoom position of combined camera is set to 80mm (35mm film equivalent) to use for a wide camera carrying wide master lens wider than 28mm (35mm film equivalent) or super zoom type camera that have not been supported by an optional wide conversion lens.
- Dual use on land/underwater to work as an ultra-wide converter underwater or fisheye converter on land(100.0° underwater/179.8°on land). Dedicated super dome option 「Dome Lens Unit II for UWL-S100 ZM80」 (coming soon) further increases its view angle underwater up to 149.8°.
- Threaded lens barrel (M52 P1.5) allows adjusting distance between this lens and camera master lens to accommodate with various cameras.
- Unique optical design allows to shorten minimum focal distance (minimum focus distance 0cm) with ultra wide view angle thus effective for Wide Macro shot.
- The lens construction is 4 elements in 4 groups by optical glasses. Subject side lens surface is water-shedding
  magenta coating and inner lenses have multi coating to suppress reflection by lenses themselves to suppress
  chromatic aberration.

## Usage

- Refer to compatibility chart in this manual to check usable camera/housing and make sure to use this product for compatible system only. This product may not be usable for some compact digital cameras carrying larger master lens or super zoom function for their particular optical characteristic, vignetting or zoom position (focal length when zooming).
- When shooting underwater, zoom towards to telephoto side until no vignetting is observed. If zoom too much, view angle gets narrow not to enjoy optimal performance of this product.
- Stop down aperture as much as possible if your camera system allows adjusting the aperture setting to obtain best results. Using open aperture or nearly open aperture setting may have ordinary results. In case of underexposure, use higher ISO setting, slower shutter speed or an external strobe to compensate it.
- When installing the lens on a housing, make sure to set it as the distance between its camera side element and the lens port surface of the housing comes to 0mm~10mm but not contact each other. Image quality varies among different camera or shooting distance, so check post view and adjusts the lens position when necessary.
- This product is not compatible with any of INON <u>「Lens Holder」</u> due to product feature to adjust mount position back and forth by screwing it.
- It is recommended not to use the built-in flash when not using an external strobe since the built-in flash light could be blocked depending on housing, shooting distance or angle of view etc.

Package contents :

- UWL-S100 ZM80 Wide Conversion Lens ①
- Rubber Lens Protector (preinstalled)
- Subject Side Front Lens Cap (PE) ②
- Camera Side Rear Rubber Cap ③
- Lock Ring M52 4
- This user manual



#### Installation method: •

 Attach appropriate 「Mount Converter」 on your M67 Lens Adapter Base/LD Lens Adapter Base. Refer to an user manual of the 「Mount Converter」 for installation method.



Screw the Lock Ring M52 onto the lens body until it nearly comes to base of the subject side lens as shown in right images.





• Slowly screw the lens body into the center hole of the 「Mount Converter」 until it comes to 0mm∼ 10mm away from the lens port surface of the housing but not contact with it.





 Then screw the Lock Ring M52 towards camera to lock lens position.

Remove the lens with combined Mount Converter underwater and shake it well to take bubbles off from lens surfaces then attach it on the Lens Adapter Base again.



### Handling precaution:

- · When screwing the lens into a Mount Converter, do not let the lens contact with the lens port surface to avoid accidental damage of the lens port and flooding.
- INON Inc. assumes no responsibility whatsoever for any direct/indirect damage (relevant expense to take a shot etc.) resulting from user's improper installation of this product.
- <u>DO NOT hold this product only to transport whole system</u> to avoid accidental damage on this product or separation of combined housing. Hold a housing during transportation.
- After using, never put the lens caps on or place the lens in a 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.
- <u>DO NOT disassemble</u>. 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 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.
- DO NOT use the lens if you observe damage on the lens surface to avoid possible flooding.

#### Maintenance

- After using, <u>always remove this product from a housing and take off the lens protector from the lens</u> (take off the protector backwards). Soak the lens in fresh water (below 30°C / 86°F) for several hours to dissolve any remaining salt, then <u>blow off water on the both lens surface</u> by compressed air etc. Leave the lens at <u>shaded</u> and well-ventilated area to dry <u>with no water drops on</u> 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.
- The surface of lens barrel (indicated by arrow in the image right) is an O-ring contact surface for the optional Dome Lens Unit. Be careful not to damage this area.



#### M52-M67 Mount Converter for UWL-S100 ZM80

An adapter to attach this product on INON 「M67 Lens Adapter Base」,

M52-LD Mount Converter for UWL-S100 ZM80

An adapter to attach this product on INON 「LD Lens Adapter Base」,



#### Dome Lens Unit II for UWL-S100 ZM80

Dome lens specifically designed for UWL-S100 ZM80 simply by attaching on top of the UWL-S100 ZM80 front lens element to increase underwater angle of view close to that of above water angle of view (max. 149.8°) as well as to shorten minimum focus distance (PAT.P). Comes with a dome lens protector to protect dome and block unnecessary light to suppress ghost.



#### UWL-100 Neoprene Carry Pouch

Neoprene carry pouch to use on land and underwater. Protect lens from shock and abrasion while in transport and storage, as well as while carrying underwater.



- M67 Lens Holder DP-S
- M67 Lens Holder DP for Float Arm
- LD Lens Holder DP-S
- LD Lens Holder DP for Float Arm

Lens holders to hold this product on an INON Arm/Float Arm product to support speedy lens exchange underwater. Equipped with deeper receptacle to hold INON lenses with long lens barrel including this product via compatible Mount Converter.



Specifications[1]	
Model	UWL-S100 ZM80
Size[2]	φ67.8mm(2.7") x 66.4mm (2.6")
Weight[②][③]	Air: 296g(10.4oz)/underwater: 145g(5.1oz)
Thread diameter/pitch	M52 / P1.5
Depth rating	60m (197')
Body material/finishing	Corrosion-resistant aluminum alloy/rigid black almite
Lens material/finishing	Optical glass/both side coatig
Construction/magnification	4 groups 4 elements / 0.23(afocal system)
Max. view angle[4]	100.0° (underwater)/179.8° (air)

# Actual shooting distance (from lens surface)

and camera 3 locas scaling				
Camera's focus setting[5]	Shooting distance (from lens surface)[6]			
280mm	0mm			
500mm	19.3mm			
600mm	28.1mm			
700mm	36.9mm			
1000mm	63.2mm			
1500mm	107.1mm			
3000mm	238.7mm			

- [1] Specification is subject to change without prior notice
- [2] Including 「Lens Protector」
- [③] Excluding 「Lock Ring M52」
- Actual view angle (actual field of view) varies depending on zoom setting of combined camera.
- [⑤] Focus range/position on land (=visual distance underwater). Multiply by 1.33 for measured distance underwater.
- [6] Measured distance underwater. Divide by 1.33 for visual distance underwater.

INON Inc.

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

E-mail <u>support@inon.co.jp</u>
Fax. +81(0)467-48-2178
URL <u>http://www.inon.jp/</u>



# INON UWL-S100 ZM80 Compatibility Chart

This chart provides necessary information when you use 「UWL-S100 ZM80」 for your camera system. Please make sure to check compatibility, necessary Lens Adapter Base and Mount Converter before using this product.

Compatibility of the UWL-S100 ZM80. "O": compatible. "X": Not compatible Glossary: "Comp."

> "L.A.B." Compatible Lens Adapter Base type to use the UWL-S100 ZM80.

"M.C."

Indicates necessary Mount Converter to attach the UWL-S100 ZM80 on a Lens Adapter Base. M52-M67 means 「M52-M67 Mount Converter for UWL-S100 ZM80」 M52-LD means 「M52-LD Mount Converter for UWL-S100 ZM80」

#### Compatibility Chart

Compatibl	nity Chart					
Mfr.	Housing	Camera	Comp.	L.A.B.	M.C.	RMK
Canon	WP-DC55	PowerShot G7X Mark	0	LD Lens Adapter Base DC54/55	M52-LD	
	WP-DC54	PowerShot G7X	0	LD Lens Adapter Base DC54/55	M52-LD	
	WP-DC52	PowerShot G16	0	LD Lens Adapter Base DC52	M52-LD	
	WP-DC49	PowerShot SX280HS	0	LD Lens Adapter Base DC46/49	M52-LD	
	WP-DC48	PowerShot G15	0	M67 Lens Adapter Base DC48	M52-M67	
	WP-DC46	PowerShot SX260HS	0	LD Lens Adapter Base DC46/49	M52-LD	
	WP-DC44	PowerShot G1X	×			*1
Panasonic	MCTZ40	LUMIX TZ40	0	M67 Lens Adapter Base	M52-M67	
	MCTZ35	LUMIX TZ35	0	M67 Lens Adapter Base	M52-M67	
	MCTZ30	LUMIX TZ30	0	M67 Lens Adapter Base MCTZ30	M52-M67	
	MCTZ20	LUMIX TZ20	0	M67 Lens Adapter Base MCTZ20	M52-M67	
	MCTZ10	LUMIX TZ10	0	M67 Lens Adapter Base MCTZ10	M52-M67	
	MCTZ7	LUMIX TZ7	0	M67 Lens Adapter Base	M52-M67	
	MCTZ5	LUMIX TZ5	0	M67 Lens Adapter Base	M52-M67	
	•					
Fujifilm		Finepix F600EXR	0			
	WP-FXF500	Finepix F550EXR	0	M67 Lens Adapter Base FXF500	M52-M67	
		Finepix F300EXR	0	·		
Sonv		DSC-WX200	0			
	MPK-WH	DSC-WX100	0	M67 Lens Adapter Base WH	M52-M67	
		DSC-WX50	0			

<sup>\*1</sup> Not usable since image quality is extremely poor.

INON Inc.

2-18-9, Dai, Kamakura, Kanagawa 247-0061 JAPAN E-mail <a href="mailto:support@inon.co.jp">support@inon.co.jp</a> +81(0)467-48-2178 Fax. **URL** http://www.inon.jp/