LAOWA 老蛙

PREFACE

Thank you for purchasing LAOWA老蛙 FF 24mm F14 2X MACRO PROBE Lens. Due to unusual shape and unique optical design, this lens offers you extraordinary shooting experiences, enables you to explore new avenues of photography and to capture incredible scenes from truly unique angle that can be inaccessible to common macro lenses.



⚠ *Prior to use, please read this Instruction Manual thoroughly to ensure proper use. Keep the manual in a place where it can be referred whenever needed. If you are unable to solve a problem by reading the manual, please contact our after-sales service for further technical support.*

FEATURES

- LAOWA老蛙FF 24mm F14 2X MACRO PROBE is a specialized macro lens for you to create stunning images with an unusual
- Featuring slim profile and special construction, this lens can be used in some environments inaccessible to regular macro lenses, such as underwater, narrow cracks or some animal caves.
- With water-repellent glass at the lens front, the lens can reach up to 20cm underwater for producing underwater photos and videos.
- To assist in shooting macro in low light conditions like some caves, the lens comes with an assist light unit at the front of it.
- This lens is all made of metal and feels extremely solid and durable, which works well for close-up photography in severe outdoor environments.

PERCAUTIONS

⚠ Handling Precautions

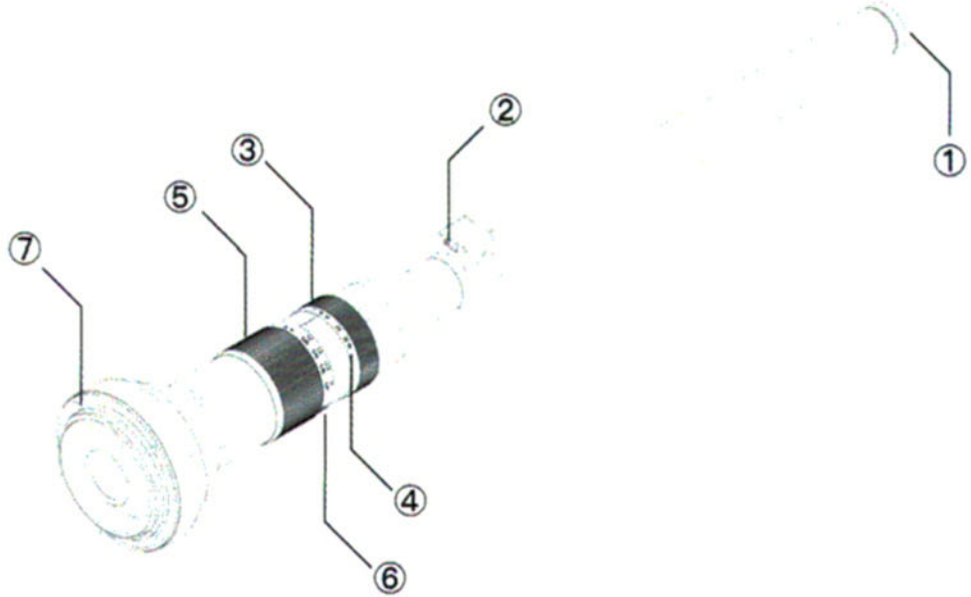
- Do not dissemble or modify the lens by yourself. Do not touch the internal parts that become exposed as the result of external force.
- Do not leave the lens where it will be exposed to extremely high temperatures, such as in direct sunlight or an enclosed vehicle. Excessive heat may deform the glass elements or other parts of the lens.
- Whether it is attached to the camera or not, do not leave the lens under the sun without the lens cap attached. This is to prevent the lens from concentrating the sun′ s rays, which could cause a fire.
- Do not place the sun in the center of the frame when shooting with backlight. Sunlight focused on the camera when the sun is in or close to the frame could cause a fire or damage to your eyes.
- Designed for 35mm Full-frame system cameras, the lens′ field of view would be cropped when mounted on APS-C format ones.

PERCAUTIONS

Maintenance Precautions

- Avoid touching the lens surface. Remove the dust on the lens surface with a lens cloth or a blower. Keep the lens attached. Please note that filters can not be used on this lens.
- The water repellent coating for the front glass element of the lens contributes to preventing the lens from cleaner adhesion. Please use the lens cleaner, along with a dedicated lens cloth.
- Using a circular motion with a lens tissue or cloth, gently remove oil, fingerprints, and grime from the lens surface, working from the center outward.
- If the lens is taken from a cold environment into a warm one, condensation may develop on the lens surface and the internal parts. To prevent condensation in this case, please take necessary precautions to protect against moisture before moving the lens.

Nomenclature



①Continuous assist light ③Aperture ring ⑤Focus ring ⑦7. Lens mount

② Micro USB ④Aperture scale ⑥Magnification / Distance scale

Using the Assist Light

To use the assist light, plug the Micro USB interface of the power cord into Position 2 (Micro USB) , with the other end connected to a 5V 1A external power supply or adapter.

Attaching and Detaching the Lens

Choose the corresponding lens mount according to your camera body, and refer to the camera' s instructions on how to mount and remove the lens.

- *This lens delivers a focusing range from 2X to infinity.*
- *Please gently turn the focus ring to prevent the focusing mechanism from damage.*

INSTRUCTIONS

Using the Aperture Ring

The lens features a stepless aperture ranging from f/14 to f/40, making it a good option for video recording.

Macro Focusing

As this lens is a manual focus only lens, please turn the focus ring on the lens to get focus. There are two ways of focusing: to set the magnification first or framing the subject first.

- *Please be careful when shooting high magnification close-ups due to the lens' extremely short working distance.*
- *Magnification is the ratio relationship between the size of the subject' s projection on the image sensor and that of the subject in reality.*

INSTRUCTIONS

Macro Focusing Tips

Method 1 Magnification Priority

1. Set the magnification first, and then turn the focus ring to the desired magnification marked on the lens.
2. Look through viewfinder or Live View, and move the camera back and forth to roughly focus to obtain proper focus.
3. Turn the focus ring to achieve precise focus.

Method 2 Framing Priority

Turn the focus ring while you are looking through viewfinder or Live View, and then follow the above step 2 and step 3.

SPECIFICATIONS

LAOWA（老蛙）FF 24mm F14 2X MACRO PROBE	
Focal Length/Aperture	24mm / F14
Max. Magnification	2X
Field of View	85°
Lens Construction	27 elements/ 19 groups (High-refractive glass x 1, Low-dispersion glass x 2, Prism glass x 2)
Aperture Blades	7
Min. Aperture	f/40
Min. Shooting Distance (Distance between the subject and image sensor)	470mm
Min. Working Distance (Distance between the subject and the front of the lens)	20mm
Focusing	MF
Lens Diameter	Φ21mm
Dimensions (Diameter/ Length)	Φ38 X 408mm
Weight	Approx. 474g