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# LAOWA 9mmF2.8 C&D-Dreamer Zero-D

使用手册

Instruction Manual

**LAOWA 老蛙**

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本公司保留对此《使用说明》的最终解释权。

Please note we reserve the right to change our product's  
design and specifications at any time without notice and  
to the final interpretation of the *Instruction Manual*.

## PREFACE

Thank you very much for purchasing LAOWA老蛙 9.0mm F2.8 C&D-Dreamer mirrorless APS-C ultra wide angle lens.



⚠ Prior to use, please read this instruction manual carefully before to ensure proper use. Keep the Instruction Manual in hand and refer to it whenever needed. If you are unable to solve the problem by read the manual, please contact our after-sales service for technical support.

## FEATURES

- Equipped with 2 pieces of double-sided Aspherical glass and 3 pieces of ED glass elements, LAOWA 9mm F2.8 offers high performance and close-to-zero distortion optical design within its extremely compact body.
- Three pieces of ED glass elements are applied to minimize chromatic aberration.
- Full-metal construction ensures the lens' assembly precision and long-lasting durability.
- Frog Eye Coating (FEC) applied to the foremost glass element helps protect the lens from droplet and grime. Multi-layer low-reflective coating for each glass element contributes to eliminating ghost and flare.

## PERCAUTIONS

### ■ Handling Precautions

- Do not disassemble or modify the lens by yourself. If it is damaged by external force, do not touch any exposed part of the lens.

Do not expose the lens to excessive heat such as direct sunshine or a

- parked car as this may deform the glass elements and other mechanism.

When it is not attached to the camera, 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 may cause a fire.

When shooting with camera's built-in flash, the lens itself may block light and cause light fall-off. So using external flash can be

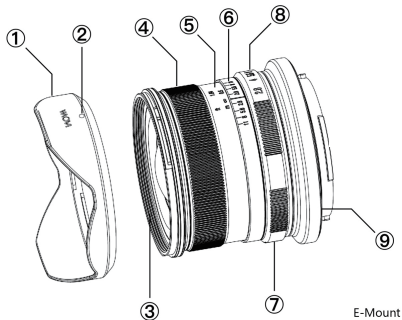
- recommended in such case.

## PERCAUTIONS

### ■ Maintenance Instructions

- Avoid touching the lens surface. Remove the dust on the lens surface with a lens cloth or a blower. UV filter can be used for lens protection. Keep the lens cap attached when the lens is not in use.
- Using a circular motion with lens tissue or cleaning 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 internal parts. To prevent condensation in this case, please take measures to protect against moisture before moving the lens.

## NOMENCLATURE



- |                  |                             |                             |
|------------------|-----------------------------|-----------------------------|
| 1. Lens hood     | 2. Lens hood mounting index | 3. Filter thread            |
| 4. Focus ring    | 5. Distance scale           | 6. Depth-of-field indicator |
| 7. Aperture ring | 8. Aperture scale           | 9. Lens mounting index      |

## INSTRUCTIONS

### ■ Mounting the Lens

Remove the lens rear cap. Align the Mounting index (9) on your lens with the matching mounting index mark on the camera. Insert the lens into the camera, refer to your lens version and then turn the lens in the attachment direction until it locks with a "click" .

### ■ Detaching the Lens

Turn the camera off. Press the lens release button on the camera, turn the lens in the direction opposite to that for attaching, and pull it out.

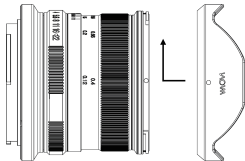
- Gently turn the lens back and forth to ensure that the lens is fully attached to the camera.
- Without CPU contacts, the lens cannot provide actual EXIF data. So please set [Release shutter w/o lens] to [enable] on the camera.



## INSTRUCTIONS

### ■ Mounting and Detaching the Lens Hood

Keep the Lens hood mounting index ② and the mounting dot on the camera aligned, and then turn the lens hood clockwise until it clicks into place.



- The lens hood helps reduce lens flare and protects the lens front element from damage.
- If the lens hood is not attached properly, vignetting may occur.
- Lens hood may be unavailable to be attached if some certain filters have been used with the lens.
- If not using the lens hood, you can also place it backwards over the lens.
- When shooting with a flash, the lens hood may block light which may cause vignetting. So when shooting with camera's built-in flash or with the external flash unit that is not high enough, please remove the lens hood first before shooting.

## INSTRUCTIONS

### ■ Focusing Instructions

As this lens is manual focus only lens, please slowly turn the Focus ring ④ to get focus.

- Gently turn the focus ring as excessive force will damage the focus mechanism.
- The Distance scale ⑤ and Depth-of-field scale ⑥ on the lens are for instructional purpose only. Actual focus and DOF may be slightly different from the scale.
- For the need of extremely precise focus, please fix the camera position and focus with a wide-open aperture. Get focus first and then set the required aperture.
- To facilitate easier focusing, please turn on [Focus peaking] in the camera setting. (Depending on the function of your camera.)

## INSTRUCTIONS

### ■ Aperture Instructions

Turn the Aperture ring ⑦ on the lens to choose the corresponding aperture according to the shooting situation and desired depth-of-field.

- As a Non-CPU lens, it cannot provide actual aperture value.
- For manual aperture, Aperture-priority mode is a better choice than Shutter-priority mode. (Note that metering precision depends on your camera model.)

## SPECIFICATIONS

LAOWA 9.0mmf/2.8 C&D-Dreamer	
Focal Length	9mm
Max. Aperture	f/2.8
Angle of View	113°
Lens Construction (Element/Group)	15/10 (including 2pcs x <u>Aspherical</u> glass& 3 <u>pcs</u> x ED glass elements)
Aperture Blades	7
Min. Aperture	f/22
Min. Shooting Distance	12cm
Max. Magnification	0.13X
Focusing	MF
Filter Thread	Φ49mm
Max. Diameter & Length (Lens hood excluded)	Φ60mm×53mm
Weight (Lens hood excluded)	215g