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安徽长庚光学科技有限公司

[www.laowalens.com](http://www.laowalens.com)

服务热线：400-066-1316

企业 QQ：400-066-1316

Email: [sales@laowalens.com](mailto:sales@laowalens.com)

电话Tel：(+86) 0551-69107990

地址：合肥市庐阳区天水路与太和路交叉口庐阳中科大校友创新园5号楼

Add：Building 5, USTC Alumni Innovation Park, Crossing of Tianshui  
and Taihe Road, Luyang District, Hefei City, Anhui Province, China

# LAOWA CF 9mm F2.8 C&D-Dreamer Zero-D

使用手册

Instruction Manual

**LAOWA 老蛙**

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design and specifications at any time without notice and  
to the final interpretation of the *Instruction Manual*.



## 前言

真诚地感谢您选购 LAOWA (老蛙) CF 9mm F2.8 C&D-Dreamer 无反 APS-C 画幅系统超广角镜头。



△ 为了操作上的安全，使用本产品前请务必仔细阅读使用手册与注意事项，并将手册放在需要时容易取得的地方。如遇到不能解决的问题请通过售后电话获取技术支持。

## 主要特色

- LAOWA (老蛙)CF 9mm F2.8 C&D-Dreamer超广角大光圈(APS-C 画幅)无反交换镜头, 采用了2枚双面非球面玻璃和3枚异常分散玻璃, 将镜头做到极限的体积, 实现了小巧轻便, 同时具备高性能, 近似零畸变的效果。
- 为解决超广角大光圈带来的色散问题, 此镜头采用了3枚异常分散玻璃(ED glass), 最大限度降低了色散像差。
- 此款镜头的机械结构全部采用金属部件, 确保了镜头的组装精度和耐用性。
- 最前方第一片镜片采用了蛙眼仿生防水镀膜FEC (Frog Eye Coating) 膜层, 水滴、脏物不宜附着, 且每块镜片均采用低反射多层膜, 最大限度消除了鬼影和眩光。

## 注意事项

### △ 安全注意事项

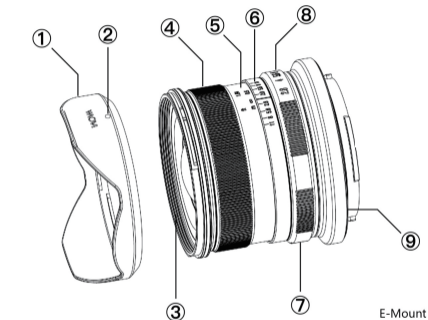
- 切勿自行拆解、修改或改装。当产品由于外力原因破损, 切勿触碰外露部分或破损边缘处。
- 切勿放置于直射阳光下、封闭车辆中或其余高温处, 否则过高的温度会使镜片和其他部件产生伸缩变形。
- 不使用镜头时, 请将镜头前盖盖上或置于没有阳光照射处。凸透镜反射出的光线可能会聚集在附近物体上, 导致发生火灾。
- 在逆光拍摄时, 切勿将太阳置于画面中心, 应该使太阳充分偏离画角, 否则阳光会在相机内部聚集并导致火灾或灼伤眼睛。
- 在使用相机内置闪光灯拍摄时, 由于镜头本身会遮挡光线而产生渐晕, 因此建议您使用外设闪光灯拍摄。

## 注意事项

### 长期使用保养注意事项

- 避免触摸镜头表面，应用专用镜头布或气吹去除镜头表面的尘埃，也可加装UV镜保护。不使用镜头时，应将镜头盖盖上。
- 使用镜头纸或镜头布清洁时，以螺旋的方式从中间向外擦拭镜头上的污垢以及指印。
- 镜头从寒冷的环境突然转移至温暖的环境时，镜头的外部以及内部镜片将会凝结水雾，所以在转移时应采取防潮保护措施。

## 各部件名称



- |      |          |          |
|------|----------|----------|
| ①遮光罩 | ②遮光罩安装标记 | ③滤光镜安装螺纹 |
| ④对焦环 | ⑤距离刻度    | ⑥景深指示刻度  |
| ⑦光圈环 | ⑧光圈刻度    | ⑨镜头安装标记  |

## 使用说明

### ■ 镜头安装

取下镜头后盖。将镜头卡口上的安装标记⑨对准相机座圈上的对应标记，随后将镜头插入机身座圈，根据所购买卡口的安装方向旋转镜头，直至咔嚓声锁紧镜头。

### ■ 镜头拆卸

关机后按下相机上的镜头释放按钮，依照所购买卡口的安装方向反向旋转镜头，随后将镜头从座圈中拔出。

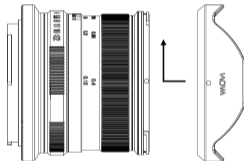
- 装上镜头后，请尝试旋转镜头确认是否已将其固定在相机上。
- 由于此为非CPU镜头，无法提供数据信息，所以请在相机内开启“无镜头释放快门”功能。

## 使用说明

### ■ 遮光罩装卸

将遮光罩上的安装标记②对准镜头上的遮光罩安装点，然后顺时针旋转遮光罩，直至锁紧末端为止。

如要拆卸遮光罩，按相反方向旋出即可。



- 安装遮光罩可减少强光并保护镜头前部元件。
- 若遮光罩未正确安装，则会产生渐晕。
- 安装某些滤光镜后，您可能无法再使用遮光罩。
- 若不使用遮光罩时，可将遮光罩反向安装于镜头上。
- 利用闪光灯拍摄时，遮光罩可能遮挡住光线而造成影像上的渐晕现象。所以在使用相机闪光灯或使用高度不够的外置闪光灯时，请拆卸遮光罩后再进行拍摄。

## 使用说明

### ■ 对焦

此款镜头是全手动对焦镜头，合焦时，缓慢旋转对焦环④，直至合焦。

- 不要过猛过快地旋转对焦环，避免用力过度损坏对焦环部件。
- 镜头上的距离刻度⑤与景深刻度⑥是出于指导目的。实际焦点与景深可能同刻度标记稍有不同。
- 如需要非常精确的对焦，请在固定好相机位置的情况下使用最大光圈对焦，对焦完成后再旋至所需要的光圈值。
- 为了对焦的方便性，请开启相机内的峰值对焦功能（视所使用相机功能而定）。

## 使用说明

### ■ 光圈使用方法

光圈在镜头上调节，根据拍摄环境和与所需要的景深，转动光圈环⑦来选择对应的光圈。

- 由于此镜头无CPU数据，所以暂时无法记录光圈参数。
- 由于光圈为手动调节，无法较好的使用快门优先模式，但可以使用光圈优先模式（测光准确度视相机型号而定）。

LAOWA CF 9mm F2.8 C&D-Dreamer	
焦距	9mm
最大光圈	f/2.8
视角范围	113°
镜头结构	10组15片(含2枚非球面玻璃、 3枚异常分散玻璃)
光阑叶片	7片
最小光圈	f/22
最近摄影距离	12cm
最大放大倍率	0.13倍
合焦驱动方式	手动(MF)
滤镜直径	Φ49mm
最大直径及长度(不含遮光罩)	Φ60mm×53mm
重量(不含遮光罩)	约 215g


 The logo for LAOWA 老蛙 features the brand name in a stylized font. The 'O' in 'LAOWA' is a multi-colored circle (green, blue, yellow). To the right, the Chinese characters '老蛙' are written in a bold, grey font.

## PREFACE

Thank you very much for purchasing LAOWA老蛙CF 9mm F2.8C&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

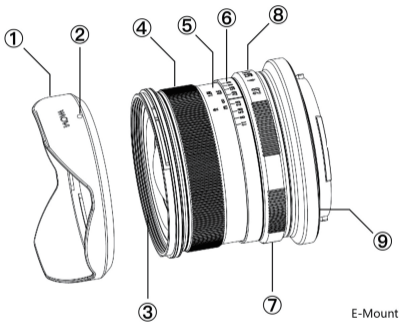
- recommended in such case.

## 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

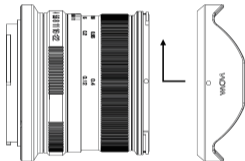
Turn the camera off. Press the lens release button on the camera, turn the lens in the direction opposite to that for attaching, and pull it out.

- *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 CF 9mm F2.8 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 glass</u> & 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