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CF 12-24mm F5.6 Zoom Shift

使用手册

Instruction Manual

**LAOWA 老蛙**

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to the final interpretation of the *Instruction Manual*.



## 前言

真诚地感谢您选购 LAOWA CF 12-24mm F5.6 Zoom Shift 广角变焦移轴镜头。此镜头是无反半画幅系统移轴镜头，专业移轴设计，变焦更易出片。



为了操作上的安全,使用本产品前请务必详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

- 1、镜头采用轻量化设计,大小为 $\phi 80\text{mm} \times 98.9\text{mm}$ ,重量约600g,搭配在半画幅机身上使用,握持感均衡,轻便携带。
- 2、12-24mm焦段,视场角 $84^\circ - 121.9^\circ$ ,低畸变的光学特性,画面中的线条横平竖直。
- 3、内部有11组15片镜片,包含3枚异常分散玻璃和2枚非球面镜片的结构带来的高素质成像。外有全金属材料制成的机械结构,保障了镜头长期使用的耐用性。
- 4、在拍摄建筑的过程中,很多时候由于环境的限制,拍摄机位离建筑较近,若使用其他镜头甚至不能拍摄建筑全貌。此时,12-24mm的视角更能轻松的在有效空间内完成拍摄任务。借助 $\pm 7\text{mm}$ 的镜头偏移,让建筑物不会因为拍摄距离近、俯仰角度大或镜头焦距广而产生的近大远小的透视变化,让拍摄变得更为严谨。

## 注意事项

### △ 安全注意事项

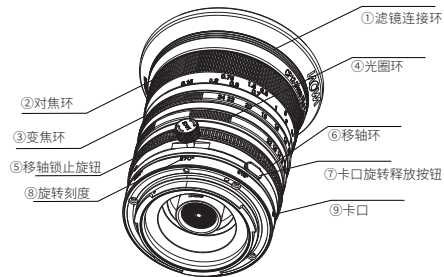
- 切勿自行拆解、修改或改装。当产品由于外力原因破损,切勿触碰外露部分或破损边缘处。
- 切勿放置于直射阳光下、封闭车辆中或其余高温处,否则过高的温度会使镜片和其他部件产生伸缩变形。
- 不使用镜头时,请将镜头前盖盖上或置于没有阳光照射处。凸透镜反射出的光线可能会聚集在附近物体上,导致发生火灾。
- 在逆光拍摄时,切勿将太阳置于画面中心,应该使太阳充分偏离画角,否则阳光会在相机内部聚集并导致火灾或灼伤眼睛。
- 在使用相机内置闪光灯拍摄时,由于镜头本身会遮挡光线而产生渐晕,因此建议您使用外设闪光灯拍摄。

## 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,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



## 使用说明

### 镜头安装

取下镜头后盖。将镜头卡口⑨上的安装标记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。安装时请不要用力过猛,以免导致卡口损伤。

### 镜头拆卸

关机后按住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。

### 光圈使用

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

由于是手动镜头卡口无CPU数据,无法记录光圈参数。

### 对焦

全手动对焦镜头,合焦时,缓慢旋转对焦环②,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。

镜头上的距离刻度是出于指导目的。实际焦点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)。

## 移动功能

移动功能的使用使得镜头的光轴平行得从影像平面的中心移开。

如果您用常规的镜头拍摄比如建筑，建筑物会因为透视逐渐变小。但是如果您使相机与建筑物平行并移动镜头，您可以纠正这个透视关系。

当您拍摄一个反光的景物时，您可以移动相机使它不在镜头内，然后用移动功能拍摄拍照，这使得您不改变拍摄构图就可以使相机不在反光面出现。

## 使用移动功能

- 1、拧松⑤移动锁止机构
- 2、转动⑥移轴环来调整移动量
- 3、在达到移轴需求量时，拧紧锁止机构

## 转动功能

转动功能使您能通过转动移动装置来改变移动的方向。当镜头装在相机上时，按住⑦转动锁定释放按钮，然后转动。

转动装置可以转动±180°，镜头在每15°位置设置限位，可锁止。

## 规格表

CF 12-24mm F5.6 Zoom Shift	
画幅	APS-C
焦点距离	12-24mm
光圈范围	F5.6-22
视场角	FF (121.9° - 84°) CF (102.5° - 63.9°)
镜头结构	11组15片 (3片ED, 2片非球面镜片)
光阑叶片	9
对焦行程	105°
光圈行程	28°
对焦刻度	英尺同刻
最近摄影距离 (物像距离)	15cm
最大放大倍率	0.4
合焦驱动方式	手动 (MF)
滤镜尺寸	φ77mm
镜头尺寸	Ø80mm*98.91mm
重量	约604g (不含前后盖)
卡口	E、L、R、X、Z、EF-M



## Preface

Thank you very much for purchasing LAOWA CF 12-24mm F5.6 Zoom Shift wide angle zoom shift lens. This is a shift lens for mirrorless APS-C systems. It adopts professional shift design, which can produce more excellent shots.



*For operational safety, please read the manual and precautions carefully before using this product, and keep the manual at a place that is easily accessible when needed. If you encounter a problem that cannot be solved, please ask for technical support through email.*

## Features

- 1.The lens is compact and lightweight with the dimension of  $\phi 80\text{mm} \times 98.9\text{mm}$  and the weight of about 600g. It can be used on APS-C cameras. It has good handling and is portable.
- 2.Focal length of the lens ranges from 12mm to 24mm and the angle of view ranges from  $84^\circ$  to  $121.9^\circ$ . Due to its optical characteristic of low distortion, all the horizontal and vertical lines in the images are in right positions.
- 3.The lens consists of 15 elements in 11 groups, including 3 ED glasses and 2 aspherical glasses, which can bring high quality imaging. The lens is all-metal constructed, ensuring its durability for long-term use.
- 4.In the process of shooting buildings, usually the camera is located closer to the building due to environmental limitations. Therefore, some other lenses may not even be possible to capture the full view of the building. However, 12-24mm lens with a wide angle of view can complete the shooting task in an effective space easily. By utilizing an offset of  $\pm 7\text{mm}$ , the lens can make shooting more rigorous and buildings that are shot by the lens will not have perspective change even though affected by close shooting distance, large pitch angle and wide focal length.

## Precautions

### ■ Safety Precautions

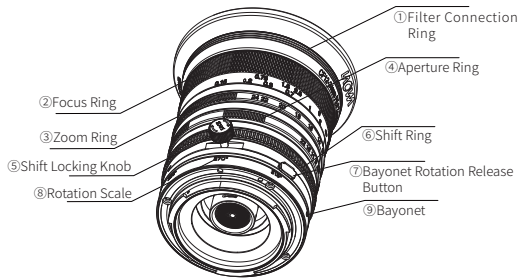
- Do not disassemble, modify the lens by yourself. Do not touch the internal parts that become exposed as the result of external force.
- Do not leave the lens where it will be exposed to high temperatures, such as in direct sunlight and an enclosed vehicle. Excessive heat may deform the glass elements and 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 frame center when shooting with backlight. Doing so might cause a fire or harm your eyes.  
The camera's built-in flash will cause vignetting if used with this lens. For best results, please use an external flash unit.



## ■ Maintenance Precautions

- Do not touch the surface of the lens directly. Brush off any dust with a blower. Wipe the surface with a cleaning cloth or a lens tissue.
- Try a circular motion from the center outward to remove oil, fingerprints and grime on the lens surface.
- If your lens is brought directly from a cold place to a warm place, condensation may appear on the lens. To avoid this, be sure to take some action to protect the lens.

## Name of each part



## Instructions

### ■ To attach the Lens

Remove the rear lens cap. Align the mounting index ⑨ on the lens bayonet with the mounting index on the camera. Place the lens on the camera mount, then rotate the lens according to the proper direction of the mount type until it locks. Do not use excessive force during installation to avoid damage to the bayonet.

### ■ To remove the lens

Turn the camera off. While pressing and holding the lens release button on the camera, rotate the lens in the reverse direction for attaching the lens until it stops. Then, detach the lens. After installing the lens, please try rotating it to make sure it is fixed to the camera.

### ■ Focusing

For the manual focus version, rotate the focus ring ② slowly to get focus.

Turn the focus ring slowly and gently to prevent it from damage.

The distance scale on the lens is for instructional purposes. Actual focus may slightly differ from those scale indications.

To get precise focus, it is recommended to focus wide open when the camera is fixed. Get focus first, then set the desired aperture by turning the aperture ring.

Turn on the focus peaking on the camera to help focusing. (Note that the function depends on camera models.)

## ■ Setting the Aperture

Aperture is set through the aperture ring on the lens. According to the shooting situation and desired depth of field, rotate the aperture ring on the lens to the corresponding aperture.

Since this is a manual focus lens with no CPU data, the aperture values cannot be recorded.

## ■ Shift Function

The shift function can make the optical axis of the lens move away from the center of the image parallelly.

When shoot buildings with a regular lens, the buildings will gradually become smaller because of the effect of perspective. However, if you shift the lens after making the camera parallel to the buildings, the problem of perspective can be solved.

When shooting a reflective subject, you can move the camera to let it out of the frame. Then, use the shift function to shoot. This allows you to make the camera not appear in the reflective side without changing the composition of the shooting.

## ■ Using the Shift Function

- 1.Loosen the shift locking knob ⑤.
- 2.Turn the shift ring ⑥ to adjust the amount of shift.
- 3.When the desired amount of shift is reached, tighten the locking mechanism.

## ■ Rotation Function

The rotation function allows you to change the direction of shift by turning the shift device. When the lens is mounted on the camera, press the rotation release button ⑦ and then turn the shift device.

The rotation device can be rotated  $\pm 180^\circ$  and the lens can be locked by setting a limit at every position of  $15^\circ$ .

## Specifications

CF 12-24mm F5.6 Zoom Shift	
Format Compatibility	APS-C
Focal Distance	12-24mm
Aperture Range	F5.6-22
Angle of View	FF (121.9° - 84°) CF (102.5° - 63.9°)
Lens Structure	15 elements in 11 groups(2 Aspherical glasses, 3 ED glasses)
Aperture Blades	9
Focus Throw	105°
Aperture Throw	28°
Focus Scale	Foot/Meter
Min. Focusing Distance (Object Image Distance)	15cm
Max. Magnification	0.4
Focus Mode	Manual (MF)
Filter Thread	φ77mm
Dimensions	Ø80mm*98.91mm
Weight	About 604g (Without front cap and rear cap)
Mount	E、L、R、X、Z、EF-M

