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LAOWA FF 24mm T14 2X **MACRO PERIPROBE**

使用手册

Instruction Manual

LAOWA 老蛙

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前言

真诚地感谢您选购 LAOWA FF 24mm T14 2X MACRO PERIPROBE转角微距镜头。此镜头是全画幅系统特种微距镜头，这支镜头以他独特的外形和特殊的光学设计，给予摄影师前所未有的拍摄体验，开拓全新的拍摄方法，捕捉到一般镜头无法完成的拍摄视角。



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

- 镜身细长, 结构特殊, 可深入部分常规微距镜头难以深入的地方, 如部分动物洞穴、水下、狭长的缝隙等。
- 镜头前镜组有两个结构, 分别是直视拍摄和90°直角拍摄, 可以自行拆卸组装。镜头后组有360°旋转机构, 配合前镜组的不同拍摄角度的组合, 可以通过切换拍摄视角, 满足实际拍摄环境的需要。
- 镜头前端附有拍摄辅助灯, 通过5V电压、type-c接口进行供电, 在难以布光的场景进行补光, 辅助拍摄。
- 镜头后组有旋转手轮设计, 在不锁死旋转机构的情况下, 可实现镜头360°旋转的拍摄效果。
- 镜头前端21cm为全防水结构, 可深入水下拍摄。

注意事项

△ 安全注意事项

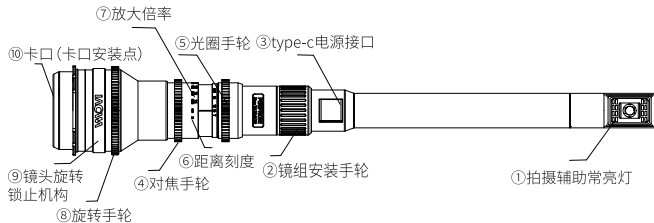
- 切勿自行在镜头结构拆装功能之外的拆解、修改或改装。当产品由于外力原因破损, 切勿触碰外露部分或破损边缘处。
- 切勿放置于直射阳光下、封闭车辆中或其余高温处, 否则过高的温度会使镜片和其他部件产生伸缩变形。
- 不使用镜头时, 请将镜头前盖盖上或置于没有阳光照射处。凸透镜反射出的光线可能会聚集在附近物体上, 导致发生火灾。
- 在逆光拍摄时, 切勿将太阳置于画面中心, 应该使太阳充分偏离画角, 否则阳光会在相机内部聚集并导致火灾或灼伤眼睛。
- 在使用相机内置闪光灯拍摄时, 由于镜头本身会遮挡光线而产生渐晕, 因此建议您使用外设闪光灯拍摄。

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



■ 镜头安装

取下镜头后盖。将镜头卡口上的安装标记⑩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。

■ 对焦

- 此款镜头是全手动对焦镜头,合焦时,缓慢旋转对焦手轮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⑥是出于指导目的。实际焦点与最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)。

■ 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, 转动镜身光圈环来选择对应的光圈。
由于此镜头无CPU数据, 无法记录光圈参数。

对焦方法一

- 放大倍率预先确定后再进行对焦
 - ① 预先确定放大倍率, 随后转动对焦环至所需的放大倍率刻度。
 - ② 通过取景器或开启Live View (实时取景) 功能观察画面, 并前 后平移相机进行粗略对焦直至确定合适的焦距。
 - ③ 转动对焦环对物体进行精确对焦。

对焦方法二

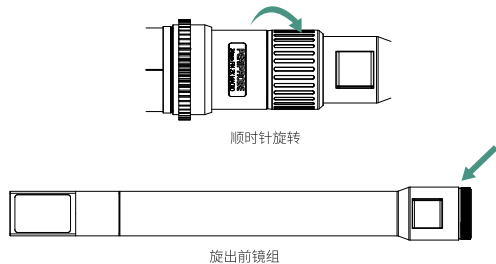
- 先构定拍摄画面 在通过取景器或开启Live View (实时取景) 功能观察画面的同时, 转动对焦环, 构定拍摄画面后, 进行方法一的②、③步骤。

在进行高放大倍率拍摄时, 镜头的工作距离非常短, 容易碰到拍摄物体, 请小心拍摄。

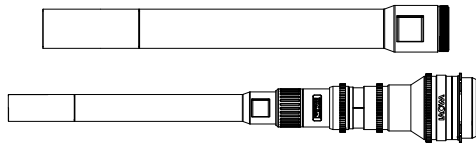
放大倍率是指记录在传感器或胶片上的图像尺寸大小与拍摄物体的实际尺寸大小之间的比例关系。

■ 前镜组拆装方法

- ① 旋转防水筒手轮，拧松并取下前镜组结构（前镜组和防水筒为一体结构）

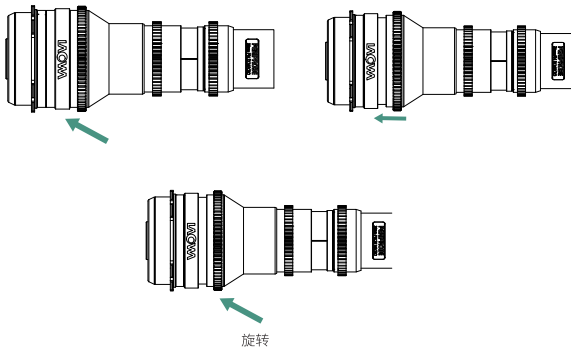


- ② 取出更换前镜组，旋入安装螺纹，并锁止防水筒手轮，拆装完成。



■ 旋转镜头使用方法

- ① 将镜头旋转机构（如图）向后推，镜头方可旋转，根据拍摄需求旋转拍摄角度，然后向前推锁止机构，旋转完成。
- ② 如果需要拍摄360°旋转视角，可将旋转机构后推，并保持非锁止状态，通过旋转手轮，可进行无级旋转拍摄。



规格表

FF 24mm T14 2X MACRO PERIPROBE	
画幅	全画幅
焦距	24mm
光圈范围	T14-T40
视场角	85°
镜头结构	19组28片(高折射率玻璃1片, 异常分散玻璃2片, 棱镜1枚)
光阑叶片	7片
最近摄影距离(工作距离)	2cm
最大放大倍率	2倍
合焦驱动方式	手动(MF)
镜头尺寸	约 $\phi 61.3\text{mm} \times 408\text{mm}$
重量	约770g (90°视角不含前后盖)
可替换直视镜组	约248g
卡口	PL、EF、R、F、Z、E、L



Preface

Thank you for purchasing LAOWA FF 24mm T14 2X MACRO PERIPROBE Lens. This lens is a special macro lens designed for full-frame cameras. Periprobe lens features unusual shape and unique optical design, which offers you extraordinary shooting experiences, enables you to explore new avenues of photography, and captures incredible scenes from a truly unique angle which inaccessible to common macro lenses.



Keep the Instruction Manual in a safe place where it can easily be referenced whenever required. If you are still unable to solve the problem by reading the manual, please contact our after-sales service for further technical support.

Features

- This long and tubular lens barrel could be inserted into places that are difficult for some conventional macro lenses to shot, such as some animal caves, underwater, narrow crevices, etc.
- This lens has two detachable front lens groups. One for direct vision shooting and another one for 90° right angle shooting. You can assemble it by yourself. The rear part of the lens has a 360° rotation mechanism, with the combination of different shooting angles of the front lens group, you can switch the shooting perspective to meet the needs of the actual shooting environment.
- An LED light (powered via 5V voltage, type-c interface) is embedded in the lens tip to provide additional lighting for focus assistance.
- This lens rear part has a rotation design, in the case of the non-locked rotating state, the lens can be rotated 360°.
- The 21cm front barrel of the lens has a fully waterproof structure. The waterproof design implies that this lens could be used in underwater shooting.

Precautions

△ Safety Precautions

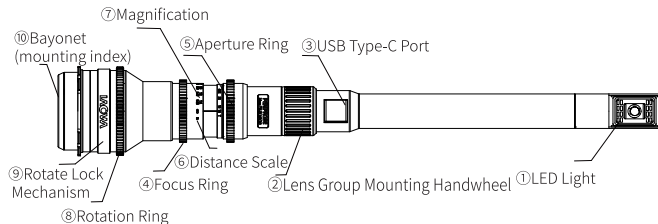
- Do not disassemble, modify the lens by yourself. Do not touch the internal parts that become exposed as the result of external force.
- Do not leave the lens where it will be exposed to high temperatures, such as in direct sunlight and an enclosed vehicle. Excessive heat may deform the glass elements 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 barrel shadow if used with this lens. For best results, please only use an external flash unit.

Precautions

■ 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.
- 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.
- 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.

Nomenclature



■ To attach the Lens

Remove the rear lens cap. Align the mounting index^⑩ on the lens bayonet with the mounting index on the camera, and 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.

After attaching the lens, please try to rotate the lens to make sure it mounted onto the camera properly.

■ 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.

■ Focusing

- This is a fully manual lens. Rotate the focusing ring^④ slowly to get focus.
Turn the focus ring slowly and gently to prevent the focus mechanism from damage.
The distance scale^⑥ are for instructional purposes. Actual focus and DOF may slightly differ from those scale indications.
To get precise focus, it is recommended to focus wide open when the camera position 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 the lens has no CPU data, the aperture value can't be recorded.

Focusing Tips

■ Method 1 Magnification Priority

- ①Set the magnification first, and then turn the focus ring to the desired magnification mark on the lens.
②Check the frame by viewfinder or [Live View] on the camera and try to get focus by moving the camera back and forth until obtaining the proper focal length.
③Rotate the focus ring to achieve precise focus.

■ Method 2 Framing Priority

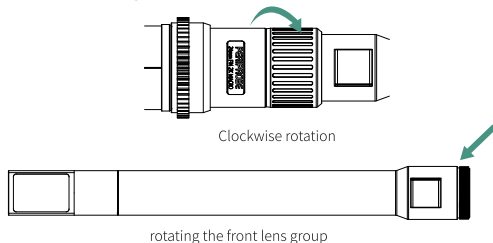
- Set the frame first. Turn the focus ring while you are checking the image through viewfinder or [Live View] on the camera, and then follow steps 2, 3 as the method 1 above.

For high magnification close-ups, because of the extremely short working distance, please be careful not to touch the subject.

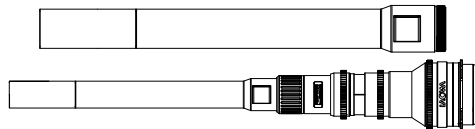
Magnification is the ratio between the size on the camera sensor of an object and its true size.

■ Detach the Front Lens Group

- ① Rotate the handwheel of the waterproof cylinder, loosen and remove the front lens group (front lens group and waterproof cylinder are integrated structure)

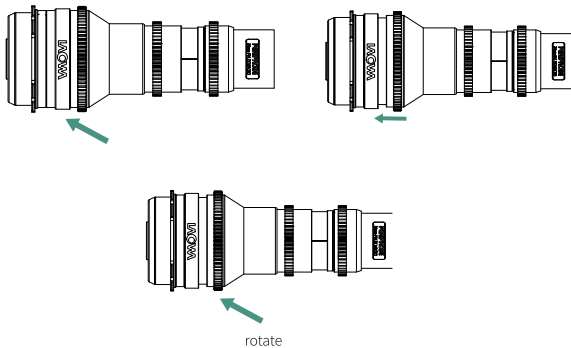


- ② Remove and replace the front lens group, screw in the mounting threads, and lock the waterproof barrel handwheel.



■ Rotate the Lens

- ① Push the lens Rotate Mechanism backward (as shown in the figure), then the lens can rotate, according to the shooting needs of the rotation of the shooting angle, and then push forward the locking mechanism, the rotation is complete.
- ② If you need to shoot 360° perspective, you can push the rotating mechanism backward and keep it non-locked, and by rotating the handwheel, you can shoot stepless rotation.



Specifications

FF 24mm T14 2X MACRO PERIPROBE	
Format Compatibility	Full Frame
Focal Length	24mm
Aperture Range	T14-T40
Angel of View	85°
Lens Structure	28 elements in 19 groups (HR*1, ED*2, Prism*1)
Aperture Blades	7
Min. Focusing Distance	2cm
Max. Magnification	2X
Focusing	MF
Dimensions	About $\phi 61.3\text{mm} \times 408\text{mm}$
Weight	About 770g
Replaceable straight perspective set	About 248g
Mounts	PL、EF、R、F、Z、E、L

NEW IDEA . NEW FUN.

LOW