

Anhui ChangGeng Optics Technology Co., Ltd

www.laowalens.com

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LAOWA

LW-FX 15mmF4.0 WIDE MACRO 1:1
Ultra-wide Angle Macro Lens

LAOWA FX Lens
(Adaptable to bayonets of Canon/Nikon/Pentax/Sony SLRs)

Operation Manual
LAOWA LENS
www.laowalens.com

Thank you very much for choosing LAOWA LW-FX 15mmF4.0 WIDE MACRO 1:1 Ultra-wide Angle MACRO LENS. Please read the Instruction carefully before using the product, in order to fully understand the use methods and precautions.



Merits

1) LAOWA's LW-FX 15mm F4.0 WIDE MACRO Lens is a full-size, interchangeable lens for DSLRs, an ultra-wide macro lens capable of macroously imaging from infinity to 1:1 magnification, offering an unprecedented visual impact from an ultra-wide field. It combines the detail beauty into a grand background, and with a strong perspective distortion, brings out an ever-increasing impact.

2) To safeguard the excellence of image quality from infinity to a close distance, it uses two moveable in-focus sets, namely, a main in-focus set and an auxiliary in-focus set, completely solving the decreased resolution caused by in-focus action. The macro lens of this type is best known for its superb excellence in imaging performance, whether in infinity or at a close distance.

3) Full-metal parts are used for mechanical structure, and assembly accuracy and reliability are thus secured.

4) The lens has a horizontal tilt-shift function for ±6mm up and down; for a camera body of an APS-C size, it is capable of lifting the shift, which can eliminate perspective distortion when a building is shot. (Note: the up shift of a full-size camera may have a vignette);

5) Low-reflective, multi-layer film is adopted for each glass, eliminating the glaring and ghosting.

Precautions

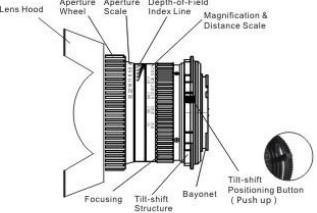
Precautions for Safety

- Avoid directing the lens or a camera fixed with the lens straight at the sun or high light, in order not to hurt your eyes or burn out the camera CCD/CMOS.
- In the sun or highlight, it is advisable to cover the lens lid to avoid burning out CCD/CMOS or firing.

Precautions for Use

- When a sudden transfer from cold surroundings to warm one, the outer of the lens and the interior optic would have condensed mist, and it is advised to have a moisture-proof protection when not used.
- The direct exposure to hard light shall be avoid. When in blazing sunlight for a long time, excessive temperature may deform the lens and other parts, causing unforeseeable malfunction.

Names of Parts



Directions for Use

Lens Assemble & Dismantle

Select the bayonet corresponding to different camera bodies made by different manufacturers, and refer to instruction on the body for installation.

Mode of Focus

The lens is of a full-manual focus one. When in focus, rotate the focusing ring slowly; too strong or too fast rotation should be avoided, for such actions may damage the ring.

How to Use Tilt-shift

Press and push the tilt-shift button and adjust the body up and down, which consists of three grades, High, Medium and Low (±6mm), while the Medium measures 0, indicating a non-tilt-shift status.

Description of Photography

Mode of General Photography

When used on APS-C body, the lens can give a field angle of a 22.5 to 24mm wide-angle lens, shot such objects as landscape and buildings, and also eliminate perspective distortion by using horizontal movement function.

Macroshot Mode

The maximal image magnification is 1:1, the shortest shot distance is 122mm, and the minimal distance from the object to be shot to lens front approximates 4.7mm (work distance).

In-focus methods include magnification priority and composition priority.
(Composition Priority: look at the image in the viewfinder and prioritize the composition before manual in-focus.)
(Magnification Priority: Set the magnification and move for in-focus back and forth.)

4-1 Depth-of-Field

Table

FNO	Infinite Depth	0.1Times	0.2Times	0.4Times	0.6Times	0.8Times	1.0Times
Front	Rear	Front	Rear	Front	Rear	Front	Rear
4	INF	270.8	242.4	179.4	172.1	138.0	127.0
5.6	INF	1465.6	276.5	238.7	160.5	171.2	138.2
8	INF	1064.8	287.0	232.7	182.8	169.5	135.9
11	INF	761.1	304.2	232.7	182.8	169.5	135.9
16	INF	581.0	334.5	215.7	191.4	164.3	140.6
22	INF	459.3	396.3	204.6	200.0	166.5	142.3
32	INF	339.1	570.8	191.9	215.2	155.8	144.9

4-2 Table of Depth-of-Field

With Identifiable Profile

FNO	Infinite Depth	0.1Times	0.2Times	0.4Times	0.6Times	0.8Times	1.0Times
Front	Rear	Front	Rear	Front	Rear	Front	Rear
4	INF	229.3	INF	164.3	354.3	143.2	159.7
5.6	INF	187.5	INF	135.4	287.8	109.2	126.5
8	INF	141.1	INF	141.7	131.5	259.8	124.8
11	INF	142.3	INF	131.4	124.9	493.1	118.4
16	INF	129.1	INF	122.9	119.0	INF	115.0
22	INF	119.8	INF	116.1	INF	113.8	INF
32	INF	113.2	INF	110.9	INF	108.6	INF

Product Specification

Lens No.	LW-FX 15mmF4.0 WIDE MACRO 1:1
Focal Distance	15mm
Aperture	4.0
Field Angle	Full size: 110° 31° (APS-C 85° 52°)
Lens Structure	9 Sets 12 panes (3 panes of HR glass, and dispersion glass)
Aperture Slot Blade	14 Panes
Min. Aperture	32
Tilt Shift (Applicable In APS-C Size)	±6mm
Closest Shot Distance (Distance from objective image)	122mm
Closest Work Distance (Distance from Object to the 1st Optical)	4.7mm
Max. Magnifying Power	1.0 Times
Mode of In-focus Drive	Manual (MF)
Filter Diameter	Φ77
Lens Size (L/D)	About Φ83.8×64.7mm
Weight	About 410 g

<p>此款15mmF4 wide macor 1:1超广角微距镜头，是由下面众多摄友建议且众筹共同完成，凝聚了众多摄影爱好者的心血，下面是众筹成员QQ名单（排名不分先后）。</p> <table border="1"> <tbody> <tr><td>安阳-棉花苗</td><td>巴山-凤子</td><td>北京-dvfire</td><td>北京-低调前行</td><td>北京-冬天</td><td>北京-莲</td></tr> <tr><td>北京-莫西哥</td><td>北京-木子墨</td><td>北京-普缘</td><td>北京-乔恩</td><td>常州-中道</td><td>大连-大路</td></tr> <tr><td>福州-蓝茜</td><td>福州-石头</td><td>错过-不丑</td><td>广西-吉卜赛男</td><td>广州-defun</td><td>广州-爱好者</td></tr> <tr><td>广州佛山-牧影</td><td>广州-难得糊涂</td><td>广州-三板斧</td><td>广州-水圆</td><td>广州-蜗牛</td><td>桂林-蓝天</td></tr> <tr><td>桂林-龙脊</td><td>海宁-金煜伟</td><td>惠州-鸿志</td><td>辽宁-开心猫</td><td>柳州-舞蝶</td><td>南昌-微朋</td></tr> <tr><td>南昌-西域的雪</td><td>南昌-阳刚</td><td>南宁-牧光</td><td>宁波-波波</td><td>宁波-黑暗流浪者</td><td>宁波-狂</td></tr> </tbody> </table>						安阳-棉花苗	巴山-凤子	北京-dvfire	北京-低调前行	北京-冬天	北京-莲	北京-莫西哥	北京-木子墨	北京-普缘	北京-乔恩	常州-中道	大连-大路	福州-蓝茜	福州-石头	错过-不丑	广西-吉卜赛男	广州-defun	广州-爱好者	广州佛山-牧影	广州-难得糊涂	广州-三板斧	广州-水圆	广州-蜗牛	桂林-蓝天	桂林-龙脊	海宁-金煜伟	惠州-鸿志	辽宁-开心猫	柳州-舞蝶	南昌-微朋	南昌-西域的雪	南昌-阳刚	南宁-牧光	宁波-波波	宁波-黑暗流浪者	宁波-狂
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 <p>安徽长庚光学科技有限公司</p> <p>保修卡</p> <p>客户服务热线： 400-066-1316 地址：安徽省合肥市 高新区望江西路168号合谷国际企业 园7号楼</p> <p>www.laowalens.com</p>	<p>保修卡</p> <p>用户姓名: _____ 电话: _____ 购买日期: _____</p> <p>地址: _____ 邮编: _____</p> <p>电子邮箱: _____ 发票号: _____</p> <p>序列号: _____</p> <p>产品型号: _____</p> <p style="text-align: right;">(经销商盖章)</p>	<p>产品保修条例</p> <p>尊敬的客户：</p> <p>承蒙慧购本公司的产品，谨致谢意！为了保护您的合法权益，同时为改善对客户的售后服务，特制定本保修条例，请仔细阅读并欢迎提出宝贵的意见和建议！</p> <p>1) 本产品自购买之日起免费保修叁年，但零附件不属于免费保修范围之内。</p> <p>2) 在免费保修期内，如发生如下情况本公司有权拒绝保修服务而酌情收取维修元件费和服务费：</p> <p style="padding-left: 20px;">A. 用户使用不当或错误操作导致的产品故障； B. 未经授权而擅自拆开设备进行维修；</p> <p>3) 送修产品请妥善包装运送，运送过程如有破损或遗失本公司恕不负责。</p> <p>4) 本公司保留最终解释权，如有修改恕不另行通知。</p>
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 <p>安徽长庚光学科技有限公司</p> <p>WARRANTY CARD</p> <p>Customer 's Name: _____ Tel: _____ Date of Purchase: _____</p> <p>Add: _____ Postal Code: _____</p> <p>E-mail: _____ Invoice No.: _____</p> <p>Serial No.: _____</p> <p>Product Model: _____</p> <p style="text-align: right;">(Agency 's Seal)</p>	<p>PRODUCT WARRANTY</p> <p>Dear Customer,</p> <p>Thank you very much for purchasing our product. In order to protect your legitimate rights and interests and to improve our after-sale services, this Product Warranty is specially established. Please read it carefully and any of your opinions or suggestions is welcomed.</p> <p>1) The product enjoys a three-year warranty from the date of being purchased, but the free warranty does not apply to parts and accessories.</p> <p>2) Within the warranty period, we have the rights to refuse to provide the warranty and may charge certain amount of fee for parts and the repair service in any of the following cases:</p> <p style="padding-left: 20px;">A. Product failure due to improper use or a faulty operation; B. Unauthorized taking-apart for service;</p> <p>3) The product to be delivery for service shall be properly packaged for shipment, and we shall not take any liability for any damage or loss during the shipment.</p> <p>4) We reserve the right of final interpretation, and may modify the warranty without any prior notice.</p>
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