



Anhui ChangGeng Optics Technology Co., Ltd

www.laowalens.com

TEL: 400-066-1316

LW-FX 15mm F4.0 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 15mm F4.0 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 marvelously 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 tilting 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

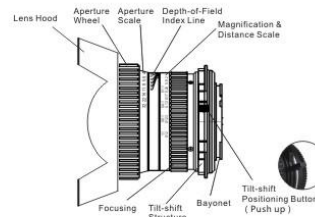
Precautions for Safety

- 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

FNO	Infinite Depth		0.1Times		0.2Times		0.4Times		0.6Times		0.8Times		1.0Times	
	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear
4	INF	1962.2	270.8	242.4	179.4	172.1	138.0	136.1	127.0	126.1	123.4	122.9	122.5	122.2
5.6	INF	1405.6	276.5	238.7	180.5	171.2	138.2	135.9	127.1	126.0	123.4	122.8	122.5	122.2
8	INF	1064.8	287.0	232.7	182.8	169.5	138.7	134.4	127.5	125.8	123.5	122.7	122.6	122.1
11	INF	781.4	304.2	225.1	186.2	167.2	139.5	134.8	127.6	125.5	123.7	122.6	122.7	122.0
16	INF	581.0	334.5	215.7	191.4	164.3	140.6	133.9	128.1	125.1	124.0	122.3	122.9	121.8
22	INF	439.3	396.3	204.6	200.0	160.5	142.3	132.8	128.8	124.6	124.4	122.0	123.1	121.6
32	INF	338.1	570.8	191.9	215.2	155.8	144.9	131.3	128.8	123.9	124.8	121.6	123.5	121.4

4-2 Table of Depth-of-Field

FNO	Infinite Depth		0.1Times		0.2Times		0.4Times		0.6Times		0.8Times		1.0Times	
	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear
4	INF	228.3	INF	164.3	254.3	143.2	199.7	126.5	125.5	121.2	121.1	119.8	125.5	120.1
5.6	INF	187.5	INF	153.7	850.4	138.3	169.2	124.8	137.8	120.5	128.8	119.5	125.8	119.9
8	INF	161.1	INF	141.7	INF	131.5	203.8	121.7	143.9	118.7	132.3	118.4	127.7	119.2
11	INF	142.3	INF	131.4	INF	124.9	491.1	118.4	163.8	116.7	119.2	117.0	131.2	118.2
16	INF	129.1	INF	122.9	INF	119.0	INF	115.0	275.1	114.5	115.6	115.5	138.7	117.0
22	INF	119.8	INF	116.1	INF	113.8	INF	111.8	INF	112.3	301.6	113.8	163.0	115.8
32	INF	113.2	INF	110.9	INF	109.6	INF	108.8	INF	110.1	INF	112.1	INF	110.4

• Product Specification

Lens No.	LW-FX 15mm F4.0 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 1 dispersion glass)
Aperture Slot Blade	14 Panes
Min. Aperture	32
Tilt Shift (Applicable to APS-C Size)	±6mm
Closest Shot Distance (Distance from objective image)	122mm
Closest Work Distance (Distance from Object to the 1st Optical Element)	4.7mm
Max. Magnifying Power	1.0 Times
Mode of In-focus Drive	Manual (MF)
Filter Diameter	Ø77
Lens Size (L/D)	About Ø83.8×64.7mm
Weight	About 410 g