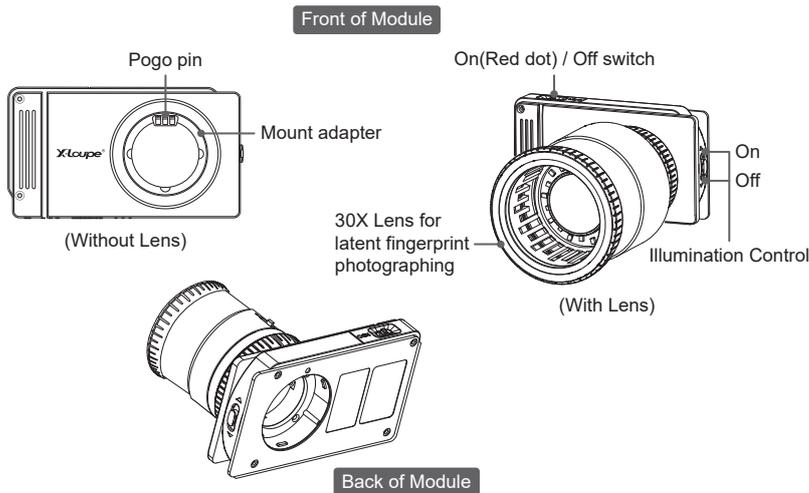


# X-Loupe® Portable Microscope Camera System User Guide

## Primary kit / 30X Lens for latent fingerprint photographing / Model NO. MGP4+

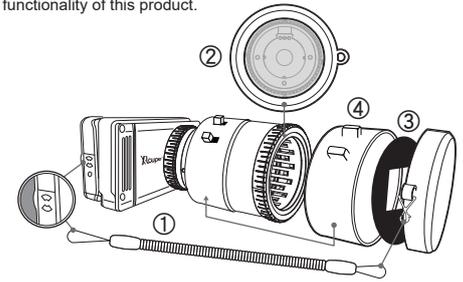
\*Please ensure that you read and understand the safety precautions. Please refer to product instruction.  
If failure to observe instructions on the use cause the damage to product is excluded from the warranty.

### Components



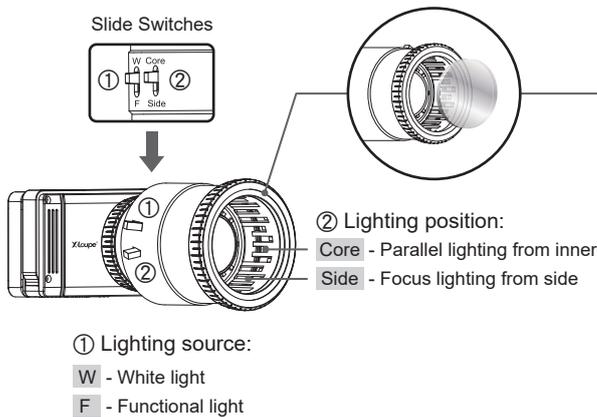
### Accessories instructions for use

The following items, you have the option of using or not, will not affect the functionality of this product.



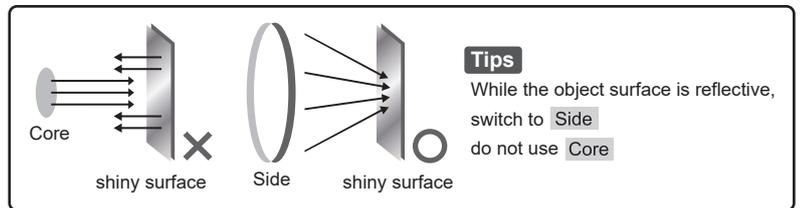
- ① Lens Cover Strap: make the lens cover stay on the camera to prevent losing.
- ② Disposable Contact Ring: Fitted around the rim of lens front, to avoid the lens is soiled with blood or body fluid.  
**Note:** Need to be use to get the best working distance.
- ③ L-Square Ruler Sticker: Affixed to the front end of the lens, help to mark the size of the shooting subject.
- ④ Switch Dustproof Cover; Prevent dust from getting into the switch.

### Light Source



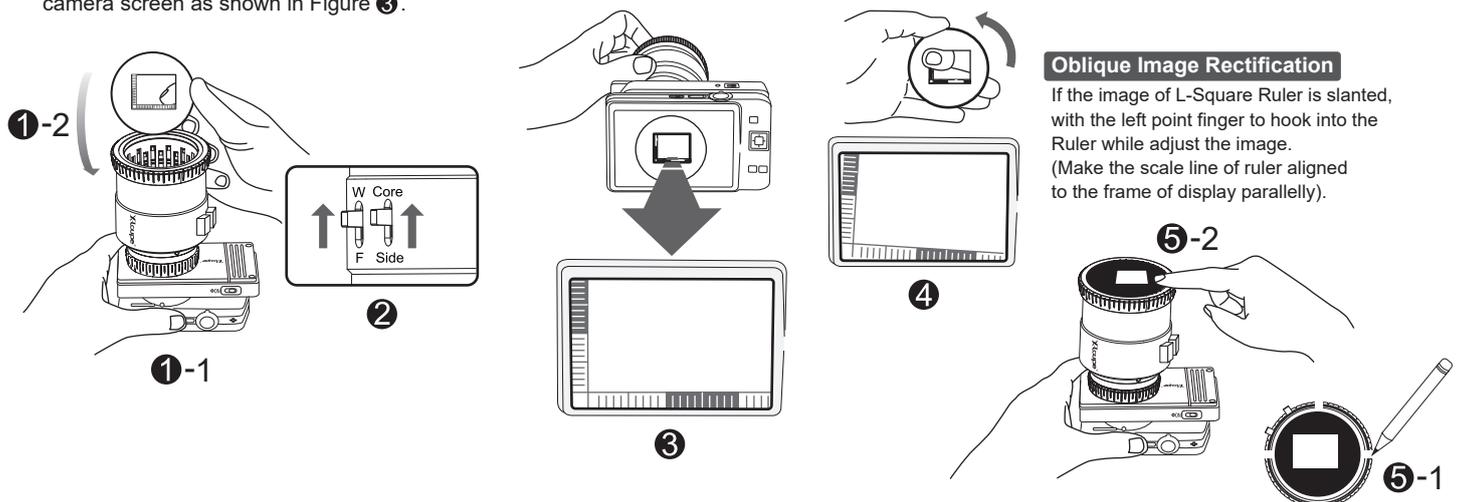
### Protection Filter (for Blue Light)

Magnetic mount design. Directly put into for installation. Remove the filter: Hold the barrel, with another palm to buckle the barrel front end, be careful and quickly put the barrel upside down, to make the lens drop into the palm. When the filter is not in use, properly store it for safety.



### Steps in positioning and bonding of L-Square Ruler

- (1) Follow the steps to set the camera shooting mode is [magnifying glass], then to complete the assembly of fingerprint lens, module and the camera, to hold the camera placed as Figure ①-1.
- (2) Make sure the light setting switched on W & Core. (fig. ②)
- (3) Face the ruler side of the sticker (still keep the plastic film), and then place it fitted into the groove of lens top. (fig. ①-2)
- (4) With left hand hold the front of lens to keep the sticker position while make the lens barrel with camera body forward lay down flat on the table.
- (5) Turn on both power of camera and module; the image will appear on the camera screen as shown in Figure ③.
- (6) Once the L-ruler is close to the screen frame which looks like a double-L, with left hand to fix the position while re-erect the lens barrel as shown in Figure ④.
- (7) Make pencil marks across the edges of L-ruler and lens so that can be replaced at this position. (fig. ⑤-1)
- (8) Then tack out L-ruler sticker, remove the plastic cover now, once again align the marks while replace it into the groove, then gently press the edge to make the adhesive tight. (fig. ⑤-2)



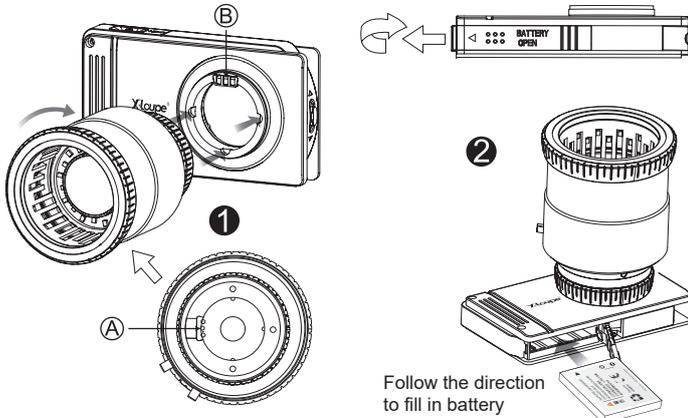
### Oblique Image Rectification

If the image of L-Square Ruler is slanted, with the left point finger to hook into the Ruler while adjust the image. (Make the scale line of ruler aligned to the frame of display parallelly).

## Product Assembly

### Step1 Mount objective lens to module

- (1) Align the 3 contact pins (A) on the back of objective lens to the 3 holes (B) on the front side of module. (fig. 1)
- (2) Rotate the lens spiral tooth clockwise until it is tight. But do not over-tighten!
- (3) Open the battery cover on the bottom, of module (press and slide the battery cover in the direction indicated by the arrow), and fill in fully-charged NB-4L Li-ion battery. (fig. 2)
- (4) Turn on module power. It will light up if the assembly operation is correct.



### Step2 Confirm the completion of the camera settings

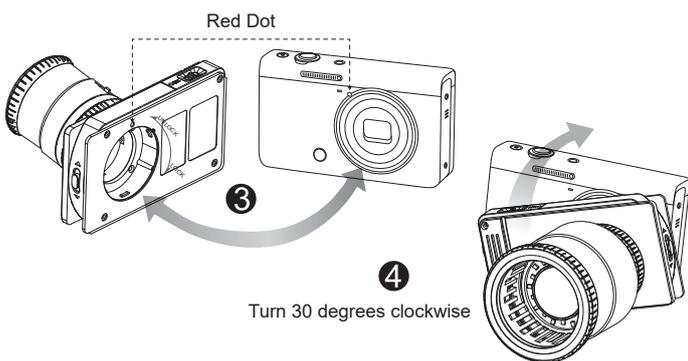
Make sure to follow the "Notice and preparation for Photography" to complete the camera mode setting.

**Note:** Before making the combination of module and camera, the camera must be in the mode of [magnifying glass] (correspond this mode, the length for camera lens as it extends will be locked out).

### Step3 Mount module to camera

- (1) Align the mount positioning on the mount ring (at the rear of module) with the red dot above the camera mount. (fig. 3)
- (2) Attach module to camera and turn 30 degrees clockwise until both bodies are firmly combined. (fig. 4)
- (3) Turn on the camera and module power. The image will appear on LCD screen if the handling is correct. If the lens barrel can not extend properly, or error code shows on camera monitor, please refer to the troubleshooting section.

If unable to solve, please immediately contact your distributor for assistance. DO NOT try to modify X-Loupe® product by yourself in any way.



### Disclaimer

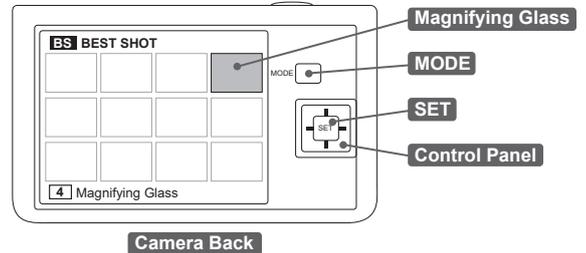
- Thank you for using this product. While every effort has been made to ensure that the information contained in this guide is accurate and complete, no liability can be accepted for any errors or omissions.
- We (Lumos Tech.) reserves the right to change the specifications described herein at anytime without prior notice.
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After Reading, Keep the User Guide Handy for Future Reference. ★In the interest of continually improving products, Lumos Tech. reserves the right to update or modify information contained in this manual without prior notice.  
★Product image of this manual is for reference only and actual product appearance may vary.

## ★ Notice and Preparation for Photography ★

The following settings are for the CASIO EX-ZR65 camera, and refer to the camera manual for setup.

- (1) Press [MODE], use ▲/▼/◀/▶ to select the top-right corner of [BS] (BEST SHOT), and press [SET], this will display a menu of BEST SHOT scenes; then once again select the top-right corner of [Magnifying Glass].
- (2) Shooting with this Scene, the settings will automatically be selected as follows:  
Flash setting → Flash Off / Optical zoom → Full wide angle  
Focusing → Marco focus / AF metering area → Spot



## Troubleshooting & Storage

- (1) About the troubleshooting of camera, please refer to the Camera User Guide.
- (2) The LED of lens barrel is not on:
  - ① Check the battery power.
  - ② Remove the lens and assemble it back to the module again. Make sure that the assembling of the lens and module is correct.
  - ③ Check the brightness index of module lighting is not set to zero. If it is, set back to "entire bright" or the suitable brightness.
- (3) Error code shown on camera display- the lens barrel of camera can not stretch out or retract:
  - ① Turn off the camera, the lens should be automatically retracted, then remove the module, check the setting for shooting mode.

**Note:** If the shooting mode is set incorrectly, it will cause the camera lens over extend to touch the module, which may cause the damage to the camera lens.

  - ② If the problem is not solved, contact your local distributor; never try to fix the camera lens by force.
- (4) Out of Focus:
  - ① Adjust the direction or posture while shooting.
  - ② Press the shutter halfway and adjust the distance between the subject and lens to reach the best focus.
  - ③ X-Loupe® is a contact-based digital microscope; therefore, do not take the picture out of its short working distance.
  - ④ Whether the camera setting has been varied? The changes in setting may lead to the function of micro photography is ineffectual.
- (5) Keep product in the dry environment such as a dry box, and get some desiccants inside the storage case / box if necessary. It is advised to use the optional "X-Loupe® specialized carrying case".

## Attention / Warning for the Battery Charging

Please use the included charger to charge the battery.

- (1) Charging Signal will light on. -- Red: Charging; Green: Charging complete.
- (2) After full charge, remove the battery from charger. Do not leave a fully charged battery connected to a charger, since overcharging may shorten the battery life. Unplug the charger from the electrical plug when not in use.
- (3) DO NOT use the battery charger in humid circumstances.
- (4) Please recycle when possible. DO NOT dispose as household waste.

### Trademark Acknowledgments

- CASIO EX ZR65 are either registered trademarks or trademarks of CASIO in Taiwan and/or other countries.
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