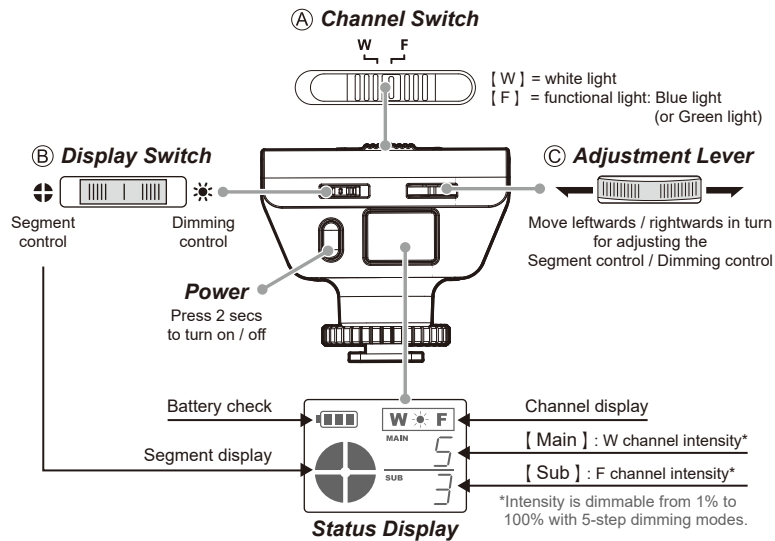


X-Loupe® Handheld Micro Shoot Series / HMS-M43 Product Parts and assembly diagram

X-Core Control unit



X-Core Illumination setting

Step1

switch the Ⓐ [Channel Switch] to [W] for white light / inner circle
[F] for functional light / outer circle

Step2 Segment Control Setting

Set the Ⓑ [Display Switch] to [+], move Ⓒ [Adjustment lever] leftwards / rightwards, in turn to change the lighting position by quadrant order; 11-segment lighting modes are shown in turn as below.

Dimming Control Setting

Set the Ⓑ [Display Switch] to [*], move Ⓒ [Adjustment lever] leftwards / rightwards, in turn to regulate the lighting intensity from 1 to 5-step.

① full ring	② left half only	③ Upper half only
④ Right half only	⑤ Under half only	⑥ Diagonal upper right / lower left
⑦ Diagonal upper left / lower right	⑧ Right half flashing	⑨ Under half flashing
⑩ Left half flashing	⑪ Upper half flashing	

[Notice]: 1. ⑧~⑪ are on the mode of 1:2 brightness ratios, the blink indicates the brightness is lower.
2. When the mode is set to ⑧~⑪, the lighting intensity setting is limited between 3 ~ 5 step.

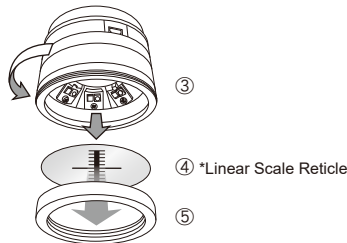
Product parts and assembly diagram

Subassembly Mounting

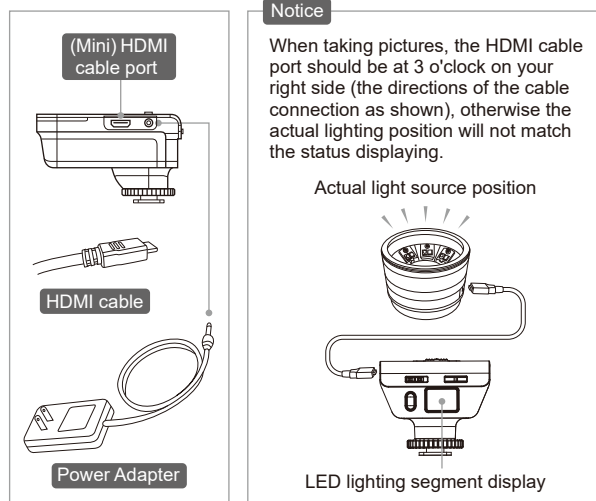
1. Take the camera, mount ① M4/3 Specific Adapter Ring on the camera lens port, and sequentially combined ② Filter, ③ Objective Lens (which already includes ④ Protective Lens/or *Linear Scale Reticle, and ⑤ Lens Adapter Ring) together.

*Linear Scale Reticle is optional.

Assembly steps: follow the illustration, remove the protective lens / reload the Linear Scale Reticle, to complete the combination of ③, ④, ⑤



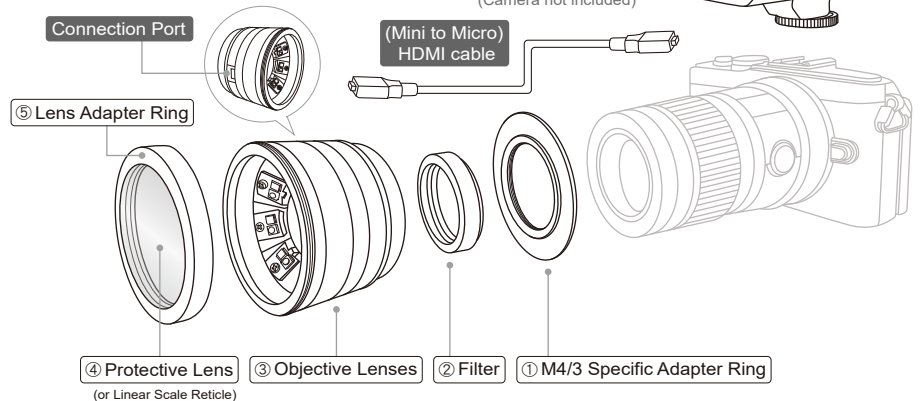
2. Mount X-Core(control unit) to the camera accessory shoe.
3. Connect the HDMI (Mini to Micro) cable to the ports on the right side of the Objective Lenses / the left side of the X-Core control unit.



LED Status Indicator

1. Please use the included power cord / poweradapter to connect the X-Core (Plus) and the power outlet for charging. The LED status indicator should immediately light up blinking Blue (alternate long and short), then turn into Red: charging is in progress; steady Blue: charging completed.
2. If the LED status indicator fails to light up, please check:
 - a). Check the socket. Is the switch not on?
 - b). Press the power button for 10 seconds to reset the software.
 - c). Or other causes affect the power supply to the socket.If necessary, ask the experts to check the socket.

*(Camera not included)



Warning for Charging / Troubleshooting & Storage

Warning for Charging

1. Check to make sure the built-in battery is fully charged before using (1st charge 8 hours, and subsequent charging around 4 hours).
2. Please use the included power cord / power adapter to connect the X-Core and the power outlet for charging.
3. After charging the battery, remove power adapter from charge inlet.
4. Warning: DO NOT USE CHARGE in WET CONDITION.

Basic Trouble shooting

1. About the troubleshooting of camera, please refer to the Camera User Guide.
2. The LED is not bright:
 - a. Check the X-Core battery power.
 - b. Check the lighting intensity is not set to zero. If it is, set back to "entire bright" or the suitable brightness.
3. The battery is fully charged, but lasts for shorter and shorter time:
Lithium-ion battery provides long-lasting battery life, can recharged at any time; but no matter what kind of rechargeable battery, it ultimately need to be replaced.

How to keep X-Loupe® series product

1. It is advised to use X-Loupe® series product in a moisture-free environment and stay away from water or high humidity.
2. Keep X-Loupe® series product in the dry environment such as a dry box, and get some desiccants inside the storage case / box.
3. If you purchased the optional "X-Loupe® series product specialized carrying case", just put it back into the carrying case after using, and get some desiccants inside if necessary.

X-Loupe® Handheld Micro Shoot Series / HMS-M43 Specification

X-Core (Control unit)		
Function	Power ON, Off / Light Channel Switch / Lighting Modes Setting / Dimming Control	
LCD Status Display	Battery check / Channel output / Lighting Modes / Lighting Intensity	
Battery	Built-in SANYO® Rechargeable Li-ion Battery, 5200mAh	
Charging method	via Power Adapter (packed separately) Input: AC 100~240V; Output: DC 5V / 2A NOTE: Only use the dedicated charger for charging	
Charging Time	1st charge 8 hrs and subsequently charge around 4 hrs	
Lasting Time (5200mAh)	10 hrs with default light intensity, 6 hrs with maximum intensity (5-step)	
Body Material	ABS and PMMA, RoHS compliant	
Dimension	88.3mm x 63.15mm x 54mm	
Weight	< 200g	
Operation Environment	0~40°C	
Use in conjunction with X-Core	Objective Lenses	
compatible with camera / lens*	① OLYMPUS M.ZUIKO DIGITAL ED 60mm F2.8 Macro ② Panasonic DG Leica 45mm F2.8 Macro O.I.S	
Camera / Specifications and Using	Please Refer to camera manual	
Included Number of Objective Lens	2	
Magnification Power	60X	120X
Lens Material	Schott® lead-free optical glass and OHARA composite spherical mirror, high transmittance and MgF ₂ AR coating	Schott® lead-free aspheric optical glass, high transparency and MgF ₂ AR coating
Field of View (By 1*1mm graph paper)	10.5 x 8.2 mm	6.8 x 5.5 mm
Resolution (by USAF 1951 Target)	64 lp / mm	114 lp / mm
Max. Dimension (mm)	41mm x 54mm	39 mm x 54 mm
Weight of Lens Barrel	125g	125g
Mounting Method for lens	Magnet mount	
Channel & Light source	Channel W: White light Channel F: Blue light (or Custom wavelength)	
LED Brand	White light: High power OSRAM LED Blue light: High power OSRAM, choose by wavelength	
LED Number	16 (each channel x 8)	
Dimming intensity	General intensity is dimmable from 1% to 100% with 5-step dimming modes Only in the charging status of power adapter can enable the Turbo mode (6-step)	
Max. current on LED (6-step)	60 mA	
Lighting Modes	11 modes: Full Ring light x 1 ► Half Ring light x 4 ► 1:2 Brightness Ratio x 4 ► Diagonal light x 2	
Max. Current Consumption	White light (5000K) / 1330 mA; Blue light (wavelength 470nm) / 650 mA	
Subassembly	① Adapter Ring (specified for use with M4/3); ② 30mm (Glass) Filter ④ (Acrylic) Protective Lens / (Glass) Linear Scale Reticule; ⑤ Lens Adapter Ring	
Material	Aluminum Alloy, Optical Grade Glass, Acrylic, ABS, PC, RoHS compliant	
Power cable length	30 cm	
Operation Environment	0~40°C / 32~104°F	

Safety Notice

- ☀ **Keep out of reach of children.**
- ☀ This product equipped high-brightness LEDs.
The LED light can be intense enough to injure eyes. For eyes safety, Do **NOT** look directly into the Ring Light or stare into LED at close range; also Do **NOT** aim the light at people.
- ☀ Keep this equipment away from water or other liquids. The usage of the humid product could result in fire or electric shock. Immediately turn off the product power, or unplug from the outlet. In case of any liquid droplet on the surface of this product, wipe it out immediately.
- ☀ Do **NOT** leave X-Core near the heat source or use in a hot environment, and avoid its exposure to the direct flame or heat.
- ☀ Do **NOT** disassemble, alter or modify to this equipment. Do **NOT** apply pressure to the LEDs of Ring Light, as this could cause damage or malfunction.
- ☀ Do **NOT** scratch, twist, tie or excessively bend the power cable and power supply cord.
- ☀ Do **NOT** discard this equipment into the trash can. Please recycle when possible.

★ In the interest of continually improving products, Product image of this manual is for reference only and actual product appearance may vary. ★ After Reading, Keep the User Guide Handy for Future Reference.
★ We (Lumos Tech.) reserves the right to change the product appearance or specification. The contents of catalogs / manuals are subject to change without prior notice.

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