



Guangzhou Micro-shot Technology Co., Ltd

# MG-120

Four channels LED light source  
User manual



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**Four channels LED light source  
MG-120**

## Thank you very much for purchasing our products

This instrument is a precision optical instrument, although our products are designed to meet the highest safety requirements. However, improper use or neglect of this manual may cause personal injury and property damage. For your safety, you should ensure the useful life of the instrument and proper daily maintenance. Please read this manual carefully before using the instrument.

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### Attention

In this manual, safety hints are indicated by the following symbols. Be sure to follow the hints of the following symbols to ensure correct and full operation.



Ignoring this symbol may result in personal injury or damage to the instrument.



Ignoring the hint of this symbol may affect the microscope observation.



Tips for users of microscope operating skills.



Pay attention to environmental protection.

## Safety warning

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Warning!

### 1. Decomposition is strictly prohibited

Except for the removable parts mentioned in this manual, it is strictly forbidden to disassemble other parts. Failure to do so may degrade instrument performance, cause electric shock, injury, and damage to the instrument. In case of any malfunction, please contact the supplier.

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Warning!

### 2. Input voltage

Please make sure the input voltage is consistent with the power supply voltage in your area. If not, do not use the product and contact the supplier. Using the wrong input voltage for the product can cause a short circuit or fire, which can damage product performance.

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Warning!

### 3. Needs to be resistant to high temperature, moisture and rarity

Please do not use it in high temperature and humid environment for a long time to avoid short circuit or other failures. The suitable working environment temperature is  $10^{\circ}\text{C}\sim 30^{\circ}\text{C}$ , and the relative humidity is 20%~80% (at  $25^{\circ}\text{C}$ ).

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### 4. Place

Please consider the following conditions when choosing a place of use to avoid adverse effects on its accuracy:

※. Avoid placing it in direct sunlight, vertically under indoor lighting, and other bright places.

※. Do not place the product in a place with high temperature, humidity and dust accumulation for a long time to avoid fogging or mold on the glass surface, dust accumulation, etc., which will damage the coated glass layer and shorten its service life.

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### 5. Instrument handling

Handling precision optical instruments should be careful to avoid damage

caused by strong impacts and rough handling.

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## **6. Environmental protection**

Please sort and properly dispose of the waste generated during packaging and use, such as cartons, foam, plastic, lights, batteries, etc.



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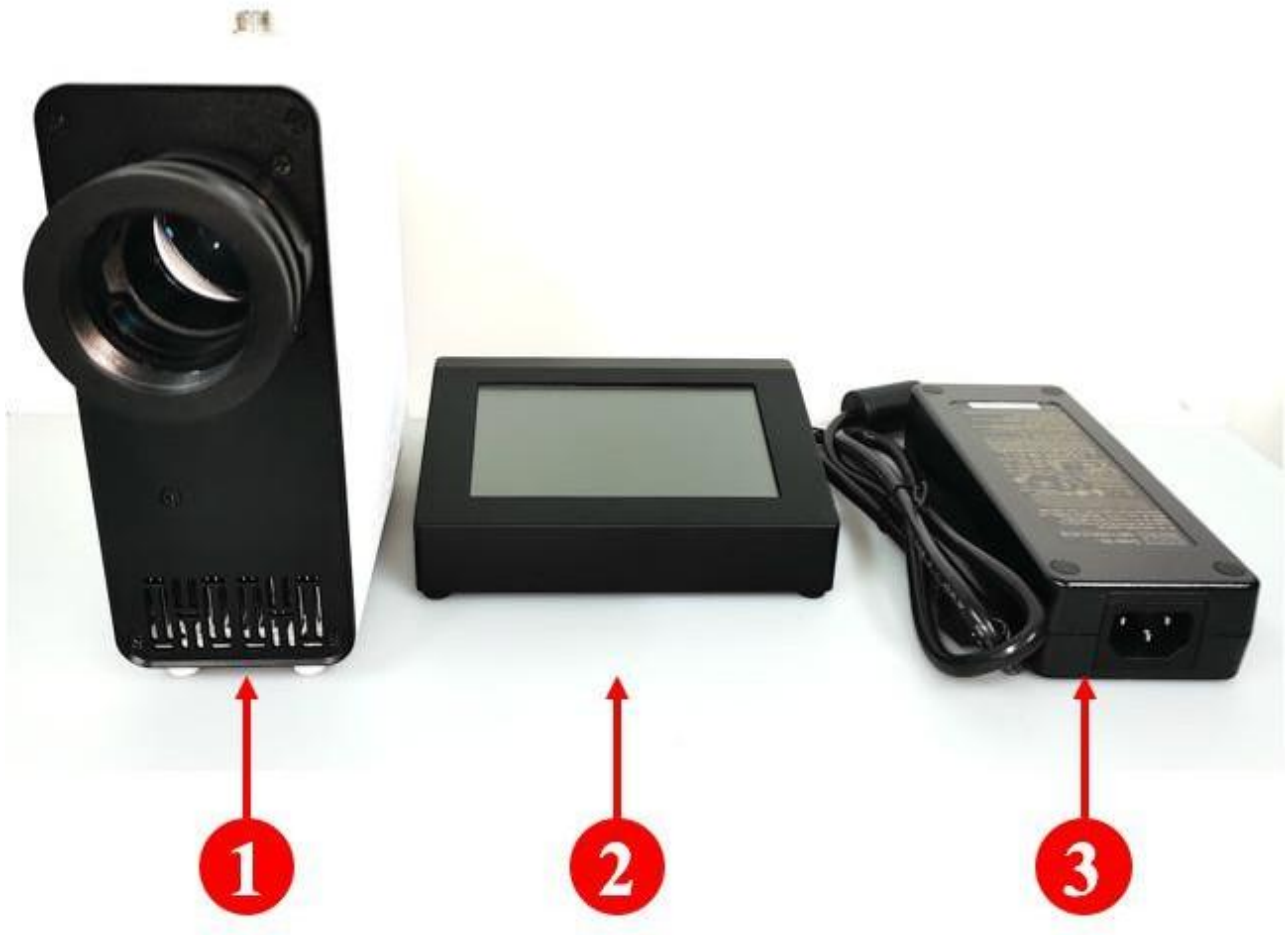




## I . Product introduction

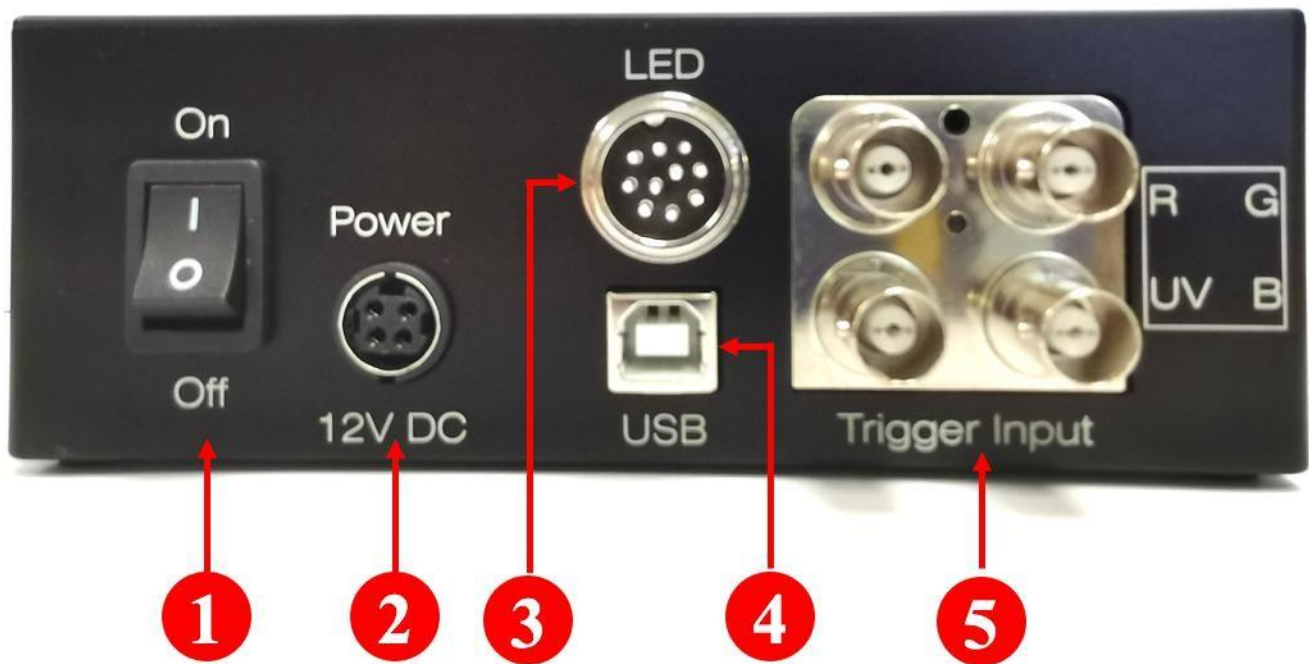
MSHOT four-channel light source MG-120, using an array light source distribution, comes standard with four broad-spectrum light sources, supports DAPI, FITC, GFP, FAM, Cy3, TxRed, Cy5 and other conventional fluorescence applications, supports wavelength customization, and meets all kinds of scientific research need.

## II . Product composition



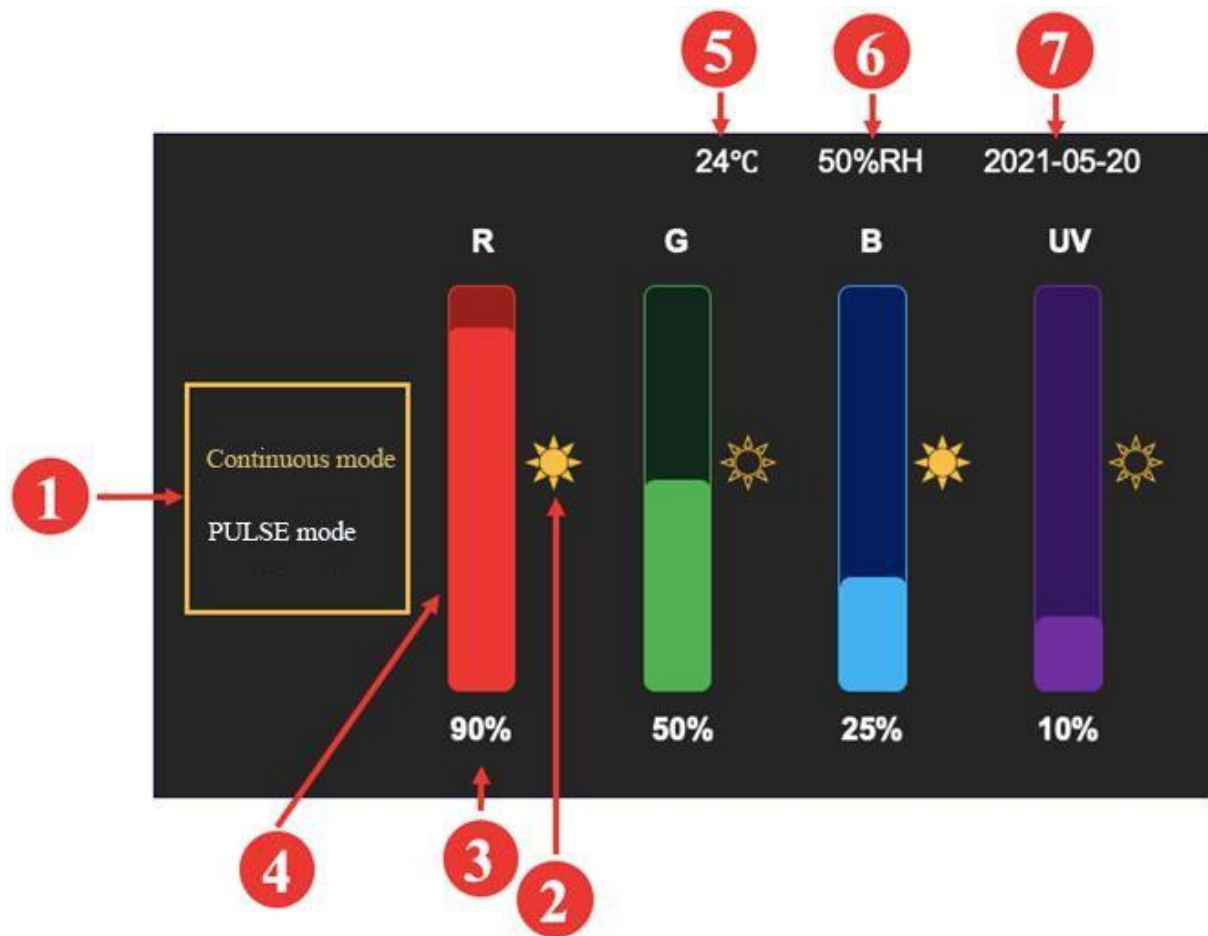
- ①. LED light source
- ②. Touch controller
- ③. Power supply

### III. Touch controller connector



- ① Switch: ON/OFF
- ② Power connector: 120W, 12VDC IN
- ③ LED connector: Connect the LED light source
- ④ USB plug: connect to a computer and control it through software
- ⑤ BNC interface: Four independent (R\G\B\UV) external trigger signal inputs.

## IV. Controller interface



### ①. Mode selection:

Continuous mode - 0-100% dimming.

PULSE mode - external trigger pulse dimming, need to connect TTL signal through BNC interface.

### ②. On/off switch.

③. Brightness display/setting: touch to make the keyboard pop up and enter the brightness ratio.

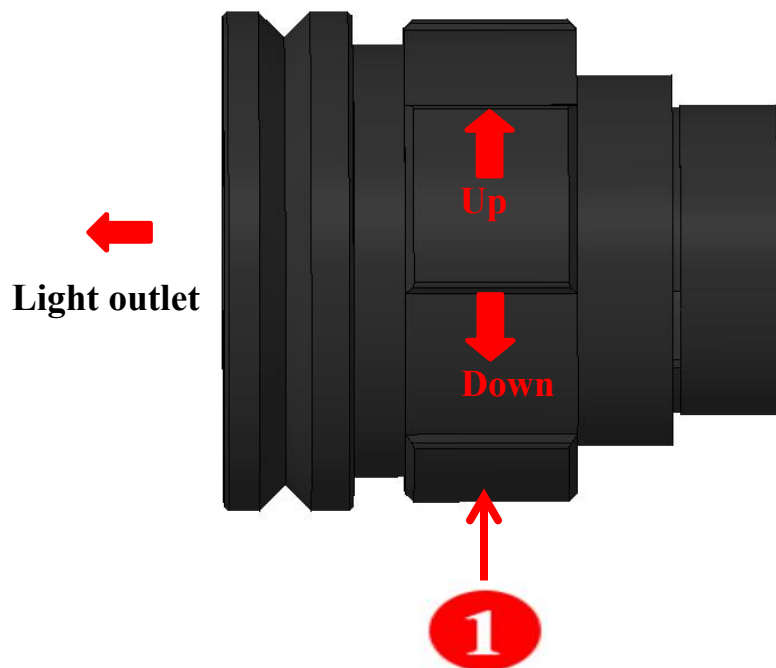
④. Brightness slider bar: touch and drag the slider bar to adjust the brightness ratio.

⑤. Temperature display

⑥. Humidity display

⑦. Date display

## V.Zoom settings



①. Zoom ring: The lamp head has a zoom device, and the focal length of the lens can be adjusted by rotating the zoom ring to achieve 4-9° zoom.

②. Rotate up, the light spot becomes smaller, and rotate down, the light spot becomes larger.

Note: The light source imaging may occur during zoom adjustment. At this time, it needs to be adjusted according to the illumination distance and the size of the object to be illuminated until the light spot is uniform.