

User Manual

MF-LED series

LED Epi-fluorescence Illumination



Guangzhou Micro-shot Technology co., Ltd

www.m-shot.com

Thank you for buying our product!

This unit is a precision optical instrument. Our product has been design to provide the highest level of safety, however, improper operation or negligence in following the instructions in this manual may cause personal injuries and property losses. In order to ensure your safety, prolong the life of this unit and maintain it properly, please read this manual carefully before operating this unit.

MSHOT MF-LED series LED epi-fluorescence illumination (single color)adopts long working life LED as light source. It can easily make a conventional microscope in infinity optical system to a energy saving, high efficiency epi-fluorescence microscope. The microscope is easy to operate and durable with fluorescence microscopy on the basis of maintain bright field observation function. Except MSHOT microscope, the MF-LED series product can match with many others famous brands microscope.

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A. Main Specifications

Mode	Color	LED central wavelength	Excitation filter	Dichroic mirror	Emission filter
MF-RB-LED	Royal blue	450nm	420-480nm	>500nm	>510nm
MF-B-LED	B	475nm	460-490nm	>500nm	>510nm
MF-G-LED	G	530nm	510-550nm	>570nm	>590nm
MF-UV-LED	UV	365nm	330-380nm	>400nm	>420nm

B. Component parts

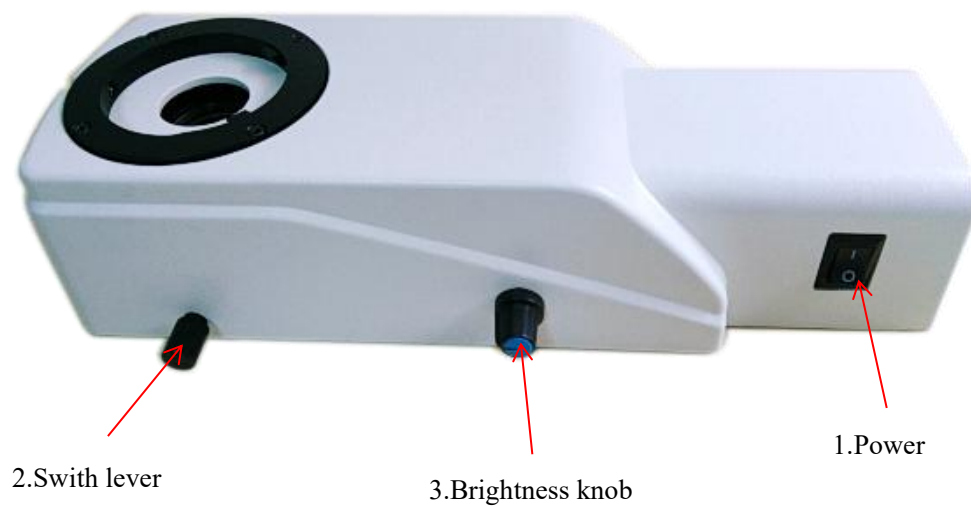


Figure 01

Function description

1. Switch lever—Used to switch between observation mode of bright field and fluorescence. Push in to get fluorescence observation, pull out to get bright field observation.

2. Brightness knob— Used to continuously adjust brightness of the fluorescent illumination.

3. Power—Used control electrical power.

C. Installation Guide

Take Olympus CX31 as sample to introduce how to install the LED epi-fluorescence illumination.

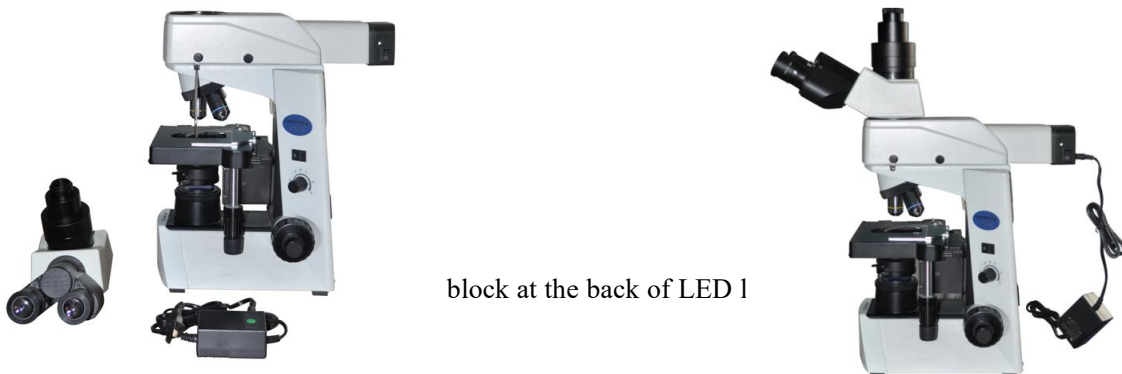
1. Unpack and take out appropriate accessories includes epi-fluorescence illumination body,

power adapter, screwdriver. Then remove the microscope observation tube, as Figure 02.



Figure 02

2. Place the illuminator stably on the microscope body as figure 03 shows, then take use of match size screwdriver to fix it. At last, mount on eyepiece tube as figure 04.



D. Using guide

1. Push in switch lever and block light rod, put a white paper on the stage of microscope, turn microscope objective to 10X.

2. Find power button, turn on power, the signal lamp is blue (As Figure 05). Push in switch lever

and block light rod (As Figure 06). There will be a circular light spot appears on the white paper. Observing light spot on the white paper,if it is not round shape, then adjust the switching lever and block light rod until it is round shape.



Figure 05



Figure 06

3.Switching the objective magnification, observe the shape of light spot under different magnification objective to make sure all light spot are in round shape.

4.When users would like to get bright field observation, power off the LED light source first, then pull out the switch lever to the limitation. (As Figure 08)



Figure 07

E. Attention:

1.Brightness of the fluorescence illumination can be adjusted freely according to the excitation level of fluorescence sample. In general, LED working life is longer when power current is less than full loading. It is recommended to adjust the brightness lower than the full current loading.

2. Under fluorescence observation, block transmitted light illumination condenser with non-reflective black plate to avoid reflective light.Or adjust the aperture size of condenser to get the best situation as Figure 09 shows. During fluorescence observation, in order to protect sample from fluorescence quenching, please pull out block light rod.



Figure 08