



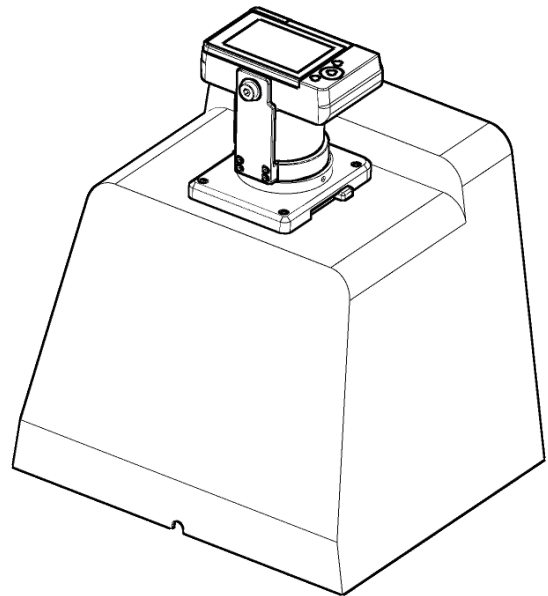
# *INSTRUCTION*

*MINI-CUTE*

*IMAGER*

CAT NO. MC-02

version 09\_25



## **Hardware Instruction Manual**

This MiniCute is suitable for research use only.

It must be used by specialized personnel that know the health risks associated with blue light irradiation and with the reagents that are normally used with this instrument. Human naked eyes with long time irradiation of blue light may have the probability of suffering from retina diseases. The amber filter provides blue light protection and is used for gel imaging. However, it does not guarantee complete protection. It is designed to shield the person and to photograph at the MiniCute Imager only.

## **Warranty**

The MiniCute is warranted against defects in materials and workmanship for 1 year. If any defects occur in the instrument or accessories during this warranty period, MaestroGen will repair or replace the defective parts at its discretion without charge.

The following defects, however, are specifically excluded:

1. Defects caused by improper operation.
2. Repair or modification done by anyone other than MaestroGen or an authorized agent.
3. Damage caused by substituting alternative parts.
4. Use of fittings or spare parts supplied by anyone other than MaestroGen.
5. Damage caused by accident or misuse.
6. Damage caused by disaster.
7. Corrosion caused by improper solvent or sample.

For any inquiry or request for repair service, please contact the local office and inform MaestroGen of the model and serial no. of the instrument.

## Regulatory Notice

### **IMPORTANT:**

This MaestroGen instrument is designed and certified to meet safety standards and EMC regulations. Certified products are safe to use when operated in accordance with the instruction manual. This instrument should not be modified or altered in any way. Alteration of this instrument will:

1. Void the manufacturer's warranty
2. Void the safety and EMC certification
3. Create a potential safety hazard

MaestroGen is not responsible for any injury or damage caused by the use of this instrument for purposes other than those for which it is intended, or by modifications of the instrument not performed by MaestroGen or an authorized agent.

## Important Notice

Please, read the installation instruction carefully before installing the MiniCute.

This instrument is intended for clinical and research laboratory use with DNA gel activation and it must be operated only by specialized personnel aware of the potential risks associated with the chemical and biological agents normally used with this unit.

This instrument is meant for use only by specialized personnel that know the health risks associated with blue light radiation and with reagents that are normally used with this instrument.

The amber filter provides some blue light protection and the UV-cut filter provides UV protection.

However, it does not guarantee complete protection, and it is designed to shield only the person working in front of the system, also to observe the DNA gel fluorescence emission clearly and perform gel cutting.

## Specifications

### [1] MiniCute Imager:

1. Outline Dimensions (mm): 282 (W) x 234(D) x 250(H) [Excluding camera height]
2. Weight: approx. 1.7 kg [Excluding Camera weight]
3. Filter Exchange: Amber filter (LED type) or UV-cut filter (UV type)
4. Illumination:
  - (1) UltraSlim LED Illuminator (wavelength: 470 nm)
  - (2) UltraBright UV Transilluminator (wavelength: 302 / 365 nm)
  - (3) UltraBright LED Transilluminator (wavelength: 470 nm)

### [2] Digital camera (Canon M-series type):

- (1) Effective pixel: 24.2 Mega pixels
- (2) LCD Size: 3" TFT Color
- (3) Lens: 15mm ~ 45mm lens, F1.8 (Wide) - F8.0 (Telephoto) ,  
**Best fit zoom of viewing: 35mm**
- (4) Mode: Program (P), Aperture Priority (A), Shutter Priority (S), Manual (M)
- (5) ISO: Auto/100/200~25600 (recommend under ISO 800 for operation)
- (6) Shutter Speed (s): 1/4000 ~ 30 seconds
- (7) Video Output: NTSC / PAL selectable (HDMI)
- (8) Interface: USB (v.2.0) /Wi-Fi ※1
- (9) Storage Media: SD/SDHC memory card
- (10) Storage Format: JPEG (ExifVer 2.3)/RAW
- (11) Weight: 301g (exclude Lens)
- (12) Dimensions: 108.2 x 67.1 x 35.1mm

#### ※1: Wi-Fi transfer files function:

Please refer to the User manual of Canon EOS M series or check more information about the camera, you may go to the Canon Official website: <http://global.canon/en/product>

## Installation

### **Carefully unpack the MiniCute as follows:**

1. First remove the bubble material at the top.
2. Remove the MiniCute from the bubble material shells and place it on a stable, horizontal surface.

### **Stand alone installation:**

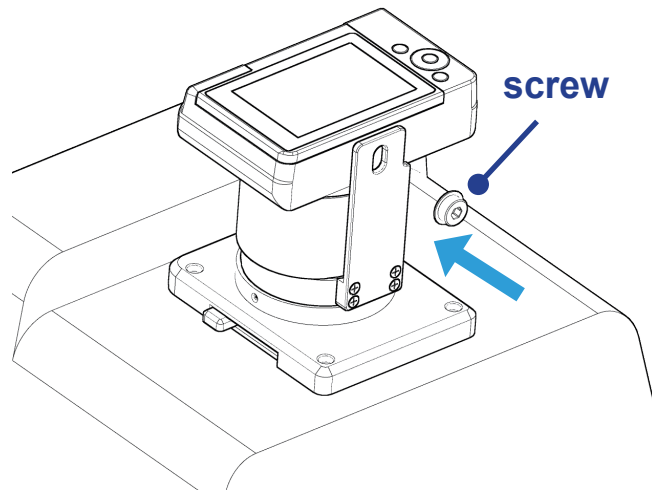
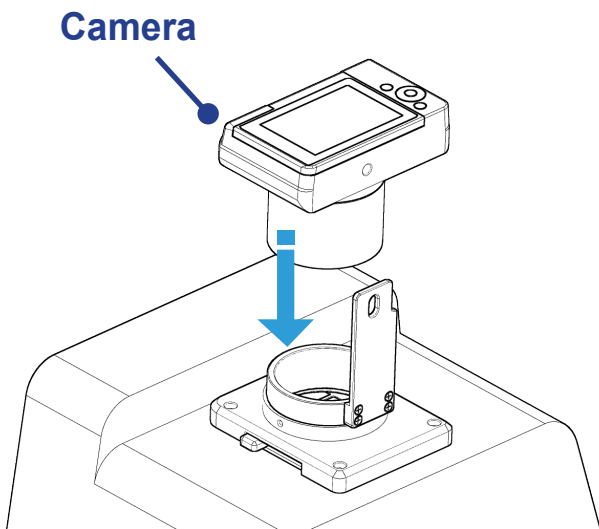
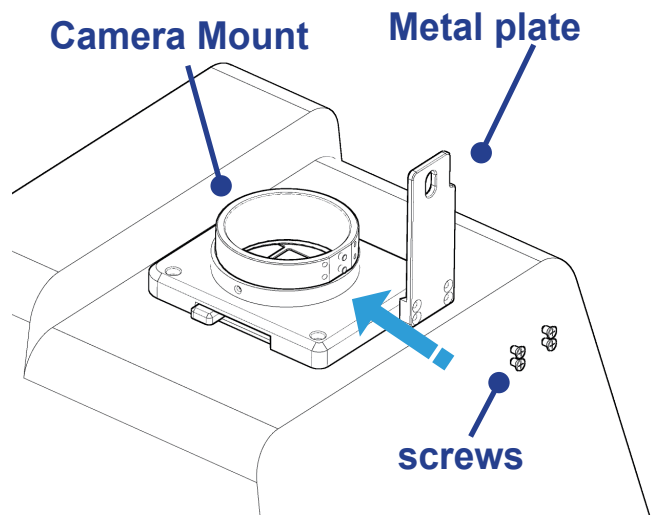
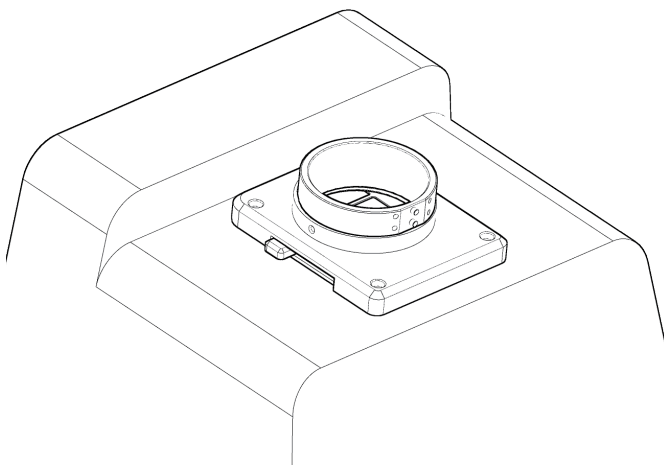
1. The instrument must be placed on a bench leaving at least 10 cm of space all around in order to avoid any obstacle that may reduce the ventilation.
2. Plug the instrument [ex. UltraSlim transilluminator (Model: SLB-01W) or UV transilluminator MLB-21] to the power using the annexed cable. The power font must be able to deliver at least 250 VA with a voltage between 100 and 240 Vac. The plug must have a ground connection.

## General Precautions

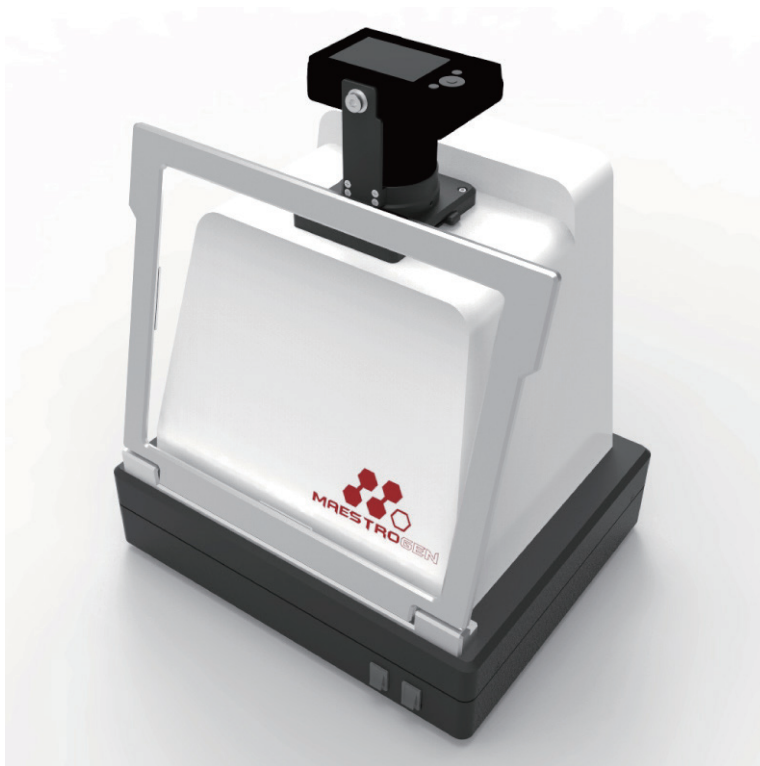
- The imager is equipped with thermal protection to prevent overheating.
- Do not pour liquids directly on the imager.
- Do not punch or collide the imager.
- Switch off the instrument immediately after its use.
- Position the imager to prevent harm to nearby operators.
- The imager sample surface is a glass sheet for cutting gels. When using the imager with samples stained with specific dyes, decontaminate the glass surface with bleach. Denatured alcohol can be also used. Always wear disposable gloves.

## Unpacking and Assembly Instruction

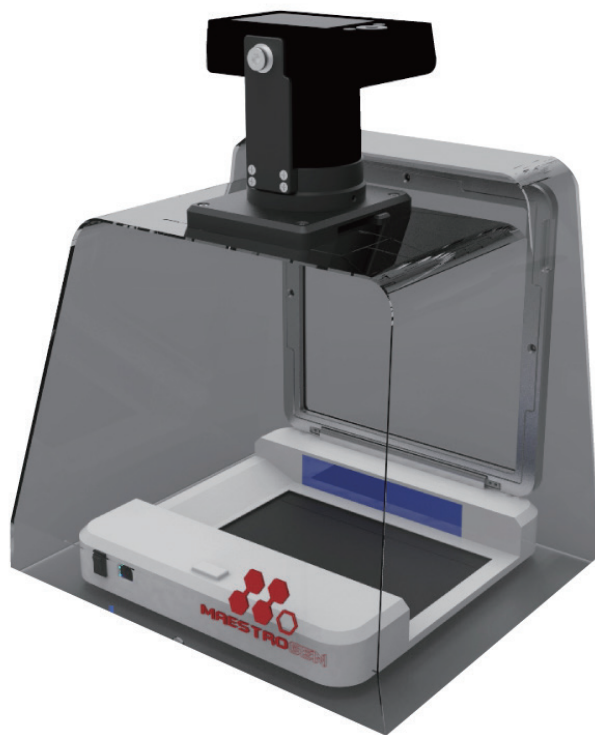
- Cut the tape and open the case.
- Remove the bubble material at the top.
- Remove the MiniCute from the bubble material shells and place it on a stable, horizontal surface.
- Carry out the camera from the camera box and one screw with metal plate washer.
- Place the metal plate on the camera mount and screw tight 4 cross type screws
- Place the camera on the camera mount, and then screw tight the screw with metal plate washer.



## General Appearance of the MiniCute



MiniCute imager combines with UltraBright Transilluminator for gel imaging



MiniCute imager combines with UltraSlim Transilluminator for gel imaging

## Using the imager

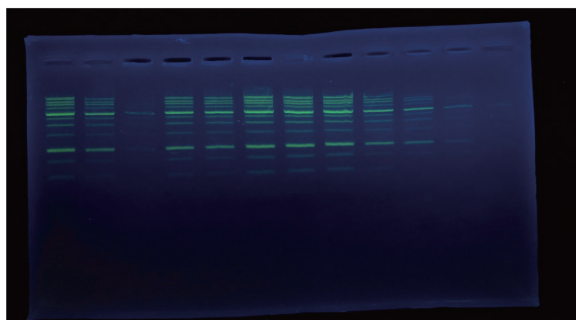
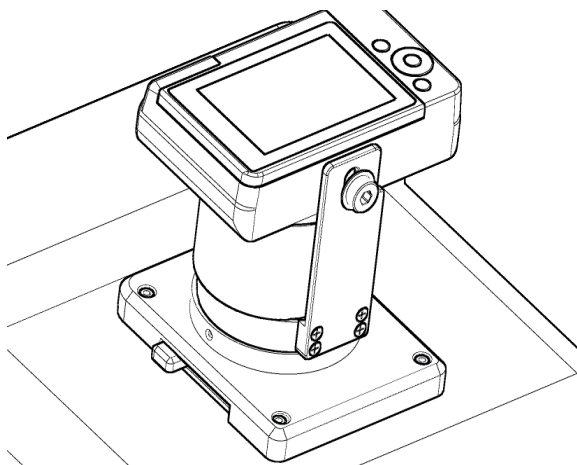
Place gel/sample on the clear glass support area. It is recommended that gloves be worn to prevent skin contact with gel and staining agents.

Turn the illuminator switch power "ON". The light source (UV or LED) within the unit will begin glowing under the glass support. After taking photographs of the sample, then turn the switch to "OFF".

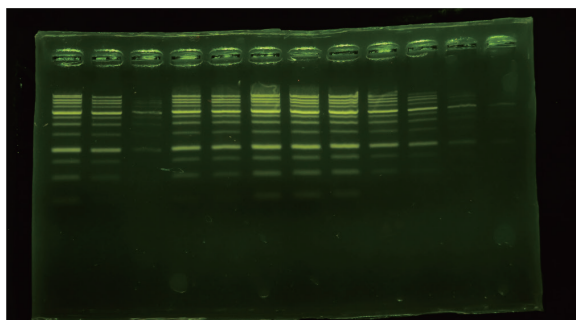
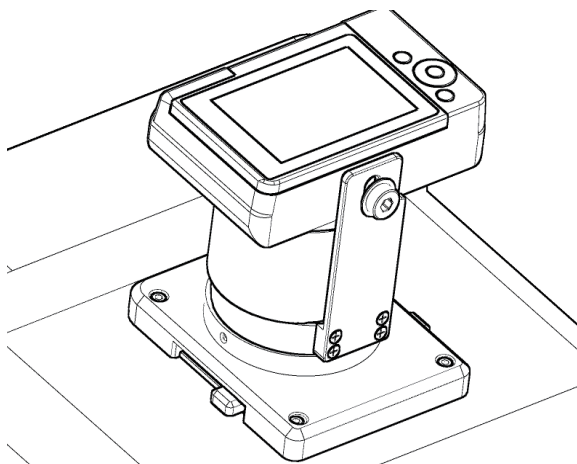
## UV/LED Filter Exchange

The bottom of camera mount that have a filter exchange function which has UV type and LED type filter, while use the different light source (UV or LED) that should exchange a correct filter type, then could get a great sample record.

### UV type



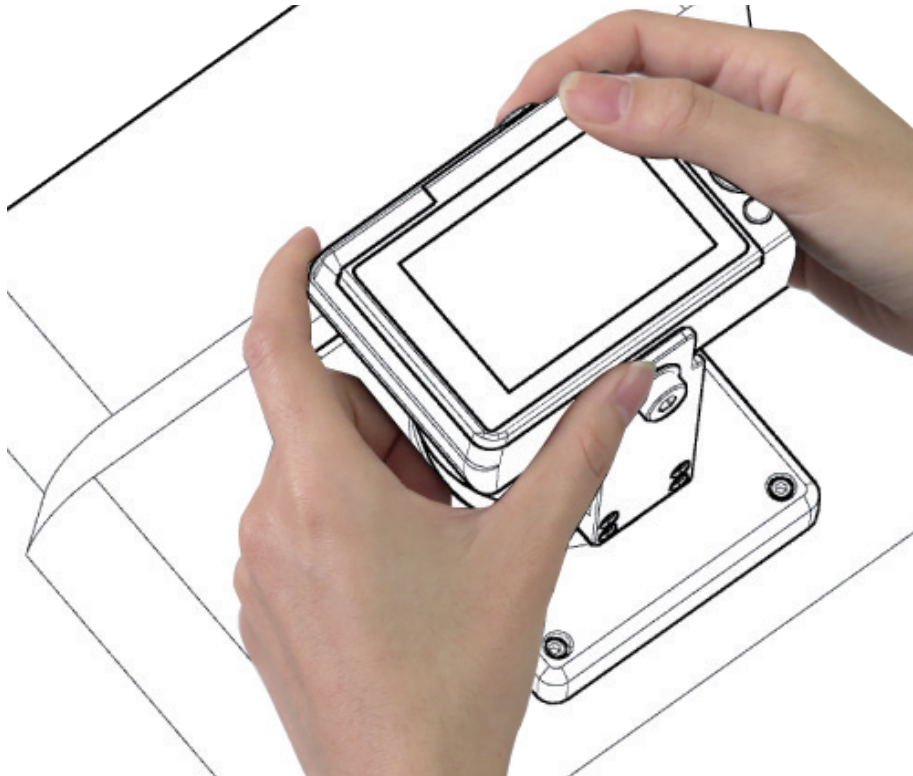
### LED type



## Camera Operation

Camera: Auto-focus, exposure time or aperture manually (M mode) or automatically controlled (Auto Mode).

More camera operation detail setting you may refer to the Canon EOS M series user manual for reference.



## **Technical Support**

Maestrogen offers technical support for all of its products. If you have any questions about the product's use or, operation, please contact MaestroGen at the following info.:

e-mail: [info@maestrogen.com](mailto:info@maestrogen.com)

Online service: [www.maestrogen.com](http://www.maestrogen.com)