



# BandPeeper<sup>®</sup> LED Transilluminator

## Instruction Manual

Catalog Number RT-172 (24V)

Version 05\_26

## Hardware Instruction Manual

This LED transilluminator 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. However, it does not guarantee complete protection. It is designed to shield the person working at the LED transilluminator only.

### WARRANTY

The LED transilluminator 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, contact your local MaestroGen office. Inform MaestroGen of the model and serial number of your 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 LED transilluminator. 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. 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.

## SPECIFICATIONS

- Dimensions (mm): 166D x 183W x 51H
- Viewing surface (mm): 150 x 60
- LED wavelength (nm): 470
- Filter: amber filter
- Filter surface: Anti-fog treatment
- PCBA surface: Anti-moisture treatment
- LED arrangements: LED matrix for two-side illumination
- LED lifetime: 50,000 hours
- Power: 24V DC 1.25A power adaptor
- Sensitivity (ng): 2
- Compatibility: with *Mupid exU*, *ACE*, and *ONE* electrophoresis tanks
- Weight (Kg): 0.96

## INSTALLATION

Carefully unpack the transilluminator as follow:

1. First remove the bubble material at the top.
2. Remove the transilluminator from the two bubble material shells and place it on a stable, horizontal surface.
3. Remove the plastic protection film from the transparent viewing surface.

Stand alone installation

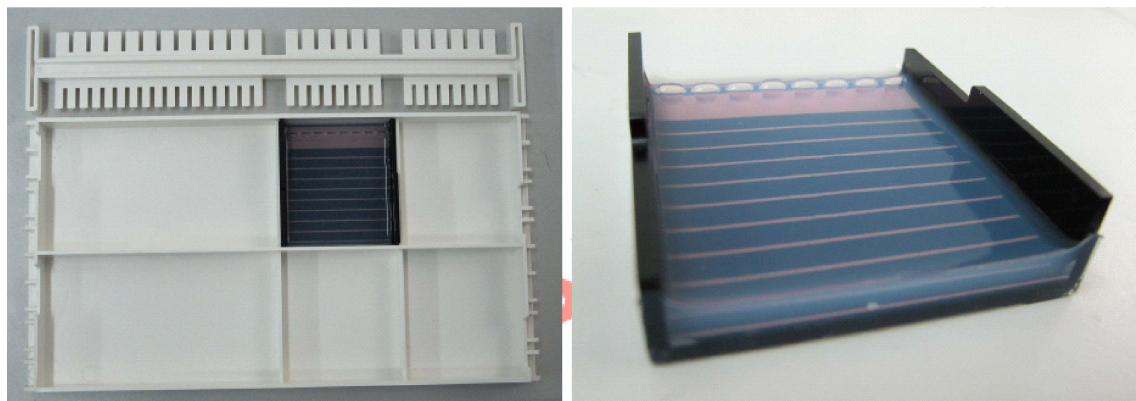
1. The instrument must be placed on a bench leaving at least 10 cm of space all around in order to avoid any obstacle that may reduce the ventilation.
2. Connect the instrument to the power using the annexed cable. The power font must be able to deliver at least 250 VA with a voltage between 100 and 240 Vac. The plug must have a ground connection. The adaptor supplies 24V DC voltage.

## GENERAL PRECAUTIONS

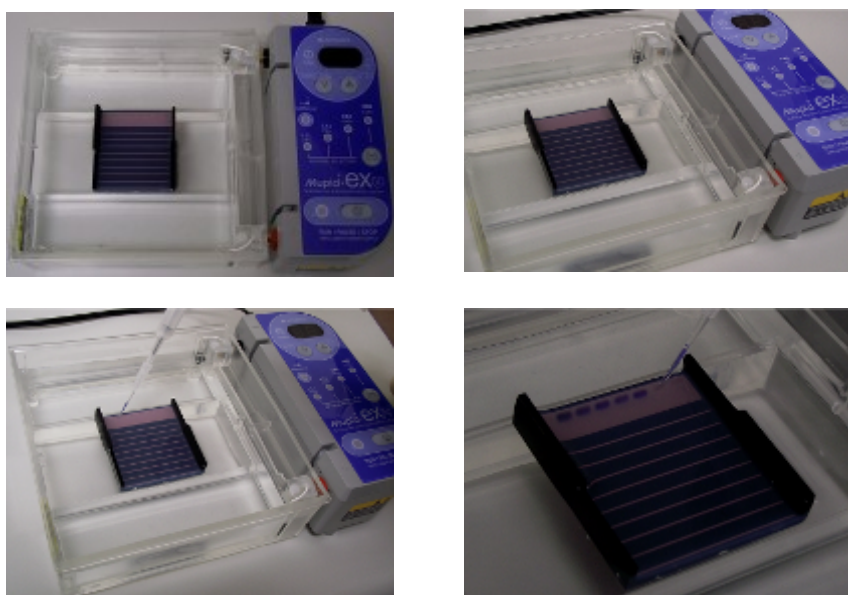
- Plug the transilluminator on an electric line with ground connection.
- The transilluminator is equipped with thermal protection to prevent overheating.
- Do not pour liquids directly on the transilluminator.
- Switch off the instrument immediately after its use.
- Position the transilluminator to prevent harm to nearby operators.
- The switch of the transilluminator is a push-on button. If continuously or frequently making LED lighting for electrophoresis of gels, it may decay the DNA gel fluorescence intensity gradually through electrophoresis duration.

## Using the transilluminator

### **Step 1: Use MaestroGen black gel tray to make gel with loading wells**



### **Step 2: Put the gel with gel tray in Mupid tank and perform dye loading**



**Step 3: Move BandPeeper® above Mupid tank**



**Step 4: Make sure the power safety buttons of *Mupid exU* have been pressed by the 2 hooks on sidewall of RT-172**



**Step 5: Plug power line into RT-172 and *Mupid exU***



**Step 6: Push the ON/OFF button of RT-172 for real-time fluorescence observation**



**Step 7: Mupid exU power OFF and move RT-172 upward away from tank**



## General Appearance of the LED transilluminator



## Rear Panel of the LED transilluminator



Adaptor output: 24V DC 1.25A

Power AC input: 100~240 V; 50/60 Hz power source

## 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)