



# NovelBright LED Illuminator Instruction Manual

*[www.genedirex.com](http://www.genedirex.com)*

# Instruction Manual

This LED illuminator 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. Long exposure of blue light to the naked eye may cause damage to the retina. The amber filter provides protection from the blue light. However, it does not guarantee complete protection. The amber filter is designed to shield the person working at the LED illuminator only.

## **WARRANTY**

The LED illuminator is warranted against defects in materials and workmanship for 1 year. If any defects occur in the instrument or accessories during this warranty period, GeneDirex 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 GeneDireX or an authorized agent.
3. Damage caused by substituting alternative parts.
4. Use or fitting of spare parts supplied by anyone other than GeneDireX.
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 GeneDireX office. Inform GeneDireX of the model and serial number of your instrument.

## **REGULATORY NOTICE**

**IMPORTANT:** this GenedireX 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

GeneDireX 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 GeneDireX or an authorized agent.

### **IMPORTANT NOTICE**

Please, read the installation instructions carefully before installing the LED illuminator. This instrument is intended for clinical and research laboratory use with DNA gel activation and must be operated only by qualified personnel, aware of the potential risks associated with the chemical and biological agents normally used with this unit and who understand 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, to observe the DNA gel fluorescence emission clearly.

## **SPECIFICATIONS**

- Dimensions (mm): 210D X 210W X 30H
- Viewing surface (mm): 120 X 70
- Wavelength (nm): 470
- Amber filter: amber filter shield with metal frame
- LED arrangements: matrix for two-side illumination
- LED lifetime: 50,000 hours
- Power: 24V DC 1 A power adaptor
- Compatible with mini gel size (mm): 110 X 60 & 55 X 60
- Weight (kg): 2.3

## **INSTALLATION**

Carefully unpack the illuminator and the shield as follow:

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

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 cable provided. The supply 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 24 V DC voltage.

Installation with the Standard Documentation System:

This instrument has been designed to work with the Standard Documentation System. In this case follow the instructions included in the Standard Documentation manual or any other instrument that will be released in the future.

## **GENERAL PRECAUTIONS**

- Ensure the illuminator is connected to an electrical supply with ground connection.
- The illuminator is equipped with thermal protection to prevent overheating.
- Do not pour liquids directly on to the illuminator.

- Do not block the aeration slits.
- Switch off the instrument immediately after use.
- Position the illuminator to prevent harm to nearby operators.
- The illuminator sample surface is a glass sheet for cutting gels. When using the illuminator with samples stained with specific dyes, decontaminate the illuminator surface with bleach. Denatured alcohol can be also used. Always wear disposable gloves.

## **Using the Illuminator**

Place gel/sample on the transparent glass support area. It is recommended that gloves be worn to prevent skin contact with gel and staining agents. Press the ON/OFF switch to ON. The LEDs within the unit will illuminate the glass support. When illuminated the sample/gel should only be viewed through the amber filter. After viewing the sample or cutting out the bands, turn the illuminator off.

## **General Appearance of the LED Illuminator**



## Front Panel of the LED Illuminator



## Rear Panel of the LED Illuminator



adaptor: 24V DC/1A

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

## **TECHNICAL SUPPORT**

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