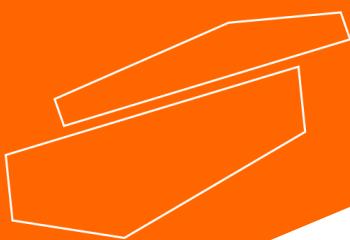




BLUE LIGHT LED TRANSILLUMINATOR

Please read the User Manual carefully before use, and follow all operating and safety instructions!



user manual
english

User Manual



BLUE LIGHT LED TRANSILLUMINATOR

Preface

Thank you for purchasing our product. Users should read this manual carefully, follow the instructions and procedures, and beware of all the preventive measures when using this instrument.

Service

If help is needed, you can always contact your dealer or Labbox via www.labbox.com

Please, provide the customer service representative with the following information:

- Serial number
- Description of the problem
- Your contact information

Warranty

This instrument is guaranteed to be free from defects in materials and workmanship under normal use and service, for a period of 12 months from the date of invoice. The warranty is extended only to the original purchaser. It shall not apply to any product or parts that have been damaged due to improper installation, improper connections, misuse, accident or abnormal conditions of operation.

Safety Warnings and Guidelines

1. Important operation information of the security

Before operation, please have a perfect conception of how to use the Instrument. Read this manual carefully before using it.

2. Security



This instrument can only be used in the ground circuit.

 Do not stare at the beam when turning on the light source.

The Company shall not be liable for the damage caused by improper operation.



The instrument and accessories shall be placed in a clean, dry, ventilated, noncorrosive and protected from direct solar exposure.



Do not touch the device with wet hands to prevent electric shock.

Always keep power off before cleaning or maintenance.



When using, please ensure that UV protective cover is well installed and the instrument is not allowed to touch with the liquid such as water when the instrument is working, to prevent the short circuit inside the instrument.



Do not use this instrument in areas with potentially explosive environments and near flammable materials.

All packing accessories are only used with this instrument and cannot be used for other instruments.



Do not disassemble the instrument by yourself.

If the instrument makes strange sounds an abnormal sound, smell, or smoke during use, please disconnect the power supply and contact the manufacturer immediately.



If there is any violation of the above matters, the consequences shall be borne by themselves.

3. The maintenance of Instrument

The frequent use of instruments will inevitably cause different degrees of wear and abnormality. Therefore, the regular maintenance and troubleshooting of the instrument, plays a decisive role to guarantee the instrument in normal working, and extend the service life of the instrument. Please read the entire safety instructions before starting maintaining or cleaning the equipment.

- a. Make sure that the power supply is disconnected before maintaining and cleaning the instrument.
- b. When the instrument is not used for a long time, it should be placed in the original packaging box to prevent dust or moisture from affecting the normal use of the instrument.
- c. Avoid direct touching between the instrument and water and other liquids, prevent entering the instrument, to cause short circuit.
- d. When cleaning, please use a sponge or towel to wipe the paint surface and the transparent area. Rough or too wet cleaning cloth will damage the equipment.
- e. The instrument shall be cleaned regularly with ethanol in a concentration of more than 70% and shall not be cleaned with corrosive liquid or detergent.

4. After Sale Service Commitment

A) Instructions of warranty

The company will replace the instrument within 1 month from the date of delivery of the product itself.

During the 2 years warranty period of the instrument, the company will provide warranty for non-human damage or faults caused by defects of the product itself. The warranty products shall be sent to the designated maintenance department by the company, and the user bears the cost of shipping back. The company will bear the freight of the instrument returning to the user.

For out of the warranty period and not covered by warranty scope, the company will charge the corresponding cost.

Damage and normal use loss caused by accidental disasters, improper user use, wrong application, unauthorized maintenance or modification, do not fall within the above warranty scope.

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01 Introduction

The blue LED transilluminator is a high-quality blue light transmission device, which is widely used for the observation of nucleic acid and protein gel staining. Blue LED light source, with amber filter cover, and use with nucleic acid-safe dyes with excitation wavelength of 450~495nm, can achieve perfect gel viewing and cutting effects without protective light filtering goggles.

Features

- Unique bottom light-emitting, evenly excite gels, high brightness, low background interference.
- Precise sealing structure effectively reduces the possibility of gel contamination.
- High-quality blue LED light source, low power consumption, more than 50,000h service life.
- Blue LED has no harmful to human body or gel samples.
- Include a fold-able darkroom for gel bands photography and precision gel cutting knife.
- Light intensity can be adjusted and memorized, no need to repeatedly setting.
- Amber cover filter can be rotated at multiple angles to facilitate observation and gel cutting.
- Widely applications: Compatible with most safe fluorescent dyes include Gquence innoQ (GDYE-001-500), SYBR Safe, SYBR Green I, SYBR Gold, Gelite Green, SYPRO Orange, GelGreen, SYPRO Tangerine etc.



02 Specifications

1. Operating Environment

The instrument is designed for schools, laboratories and factories for the following environments

- The elevation does not exceed 2000 m
- Temperature ranging from 0°C to 40°C
- Installation type: the product is designed to connect the indoor socket, and the voltage fluctuation does not exceed $\pm 10\%$ of the normal value.
- The minimum distance between instrument room, instrument and wall is 100 mm

2. The basic parameters and function

Product	Blue Light LED Transilluminator
Dimension	L265xW195xH30mm
Observation area	L210xW120mm
Max emission wavelength	470nm
LED lifetime	>50,000h
LED source	Built-in blue light LED module
Auto shutdown time	5min
Power supply	100-240V~50/60Hz
Power adapter	12V 1A
Weight	1000g

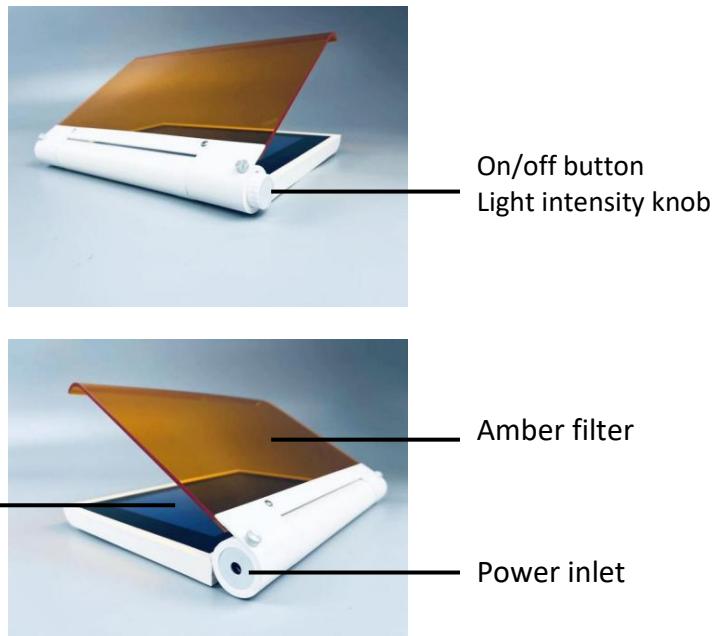
03 Function Introduction

1. Structure Description



- A. LED UV Light Transilluminator
- B. Mini Darkroom
- C. Power Cord
- D. Gel-Cutting Knife and Replacement Blade

2. Product structure



04 Operation Guide

1. Preparation

- Open the outer package, foam wrap the instrument, take out carefully.
- Remove the foam material on both sides and place the transilluminator smoothly in the operating area. Make sure the instrument is placed horizontally. The environment of the instrument should be clean, dry, ventilated, not corrosive and avoid direct sunlight.
- Remove the protective cotton between the UV protective cover and the cutting platform.

2. Operation Instruction

- 1) Place the blue light transilluminator on a level bench.



- 2) Connect power cord and power socket.

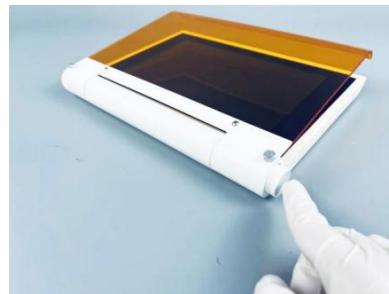


- 3) Place the gel to be observed in the observable area of the work surface.



- 4) Adjust the angle of the amber filter to the best observation state.

- 5) Press on/off button.



(Note: The instrument will automatically shut down after 5 minutes of continuous operation. If the LED light source automatically turns off, press the power button again to turn the light source back on.)

- 6) Rotate light intensity knob to adjust the light intensity.



(Note: Turn the light intensity knob clockwise to increase the light intensity; turn the light intensity knob counterclockwise to decrease the light intensity)

7) The gel sample bands can be viewed through the amber filter. If the sample needs to be purified, a gel cutter can be used to cut and purify the gel sample bands.



8) If the strips are not clear due to the lighting environment in the room or the result information needs to be retained, you can use a mini darkroom to observe or use a smartphone to take photos to retain the results.



9) After it is finished, turn the transilluminator off.

10) Clean the amber filter and glass area with anhydrous ethanol, making sure the area is clean and dry.

Failure Analysis and Handling

Problem	Possible cause	Solution
Low sensitivity	Wavelength mismatch	Check the excitation and emission wavelengths of fluorescent dyes.
LED light source turns off	The instrument will automatically shut down if it is running for more than 5 minutes	1. Press the power button again to turn the light back on 2. If the light does not turn on after pressing the power button again, please contact the supplier
High background or no image	Low sample concentration	Check sample concentration

Attachment A - Packing list

No.	Item	Unit	Qty
1	Blue Light Transilluminator	unit	1
2	Power adapter	pcs	1
3	Mini dark room	pcs	1
4	Gel cutting knife handle	pcs	1
5	Matching blade	pcs	6

Nota importante para los aparatos electrónicos vendidos en España

Instrucciones sobre la protección del medio ambiente y la eliminación de aparatos electrónicos:



Los aparatos eléctricos y electrónicos marcados con este símbolo no pueden ser eliminados en forma de residuos urbanos.

De conformidad con la Directiva 2012/19/UE, los usuarios de la Unión Europea de aparatos eléctricos y electrónicos, tienen la posibilidad de devolver sus RAEE para su eliminación al distribuidor o fabricante del equipo después de la compra de uno nuevo. La eliminación ilegal de aparatos eléctricos y electrónicos es castigada con multa administrativa.

Remarque importante pour les appareils électroniques vendus en France

Informations sur la protection du milieu environnemental et élimination des déchets électroniques :



Les appareils électriques et électroniques portant ce symbole ne peuvent pas être jetés dans les décharges.

En réponse à la réglementation, Labbox remplit ses obligations relatives à la fin de vie des équipements électriques de laboratoire qu'il met sur le marché en finançant la filière de recyclage de ecosystem dédiée aux DEEE Pro qui les reprend gratuitement (plus d'informations sur www.ecosystem.eco).

L'élimination illégale d'appareils électriques et électroniques est punie d'amende administrative.

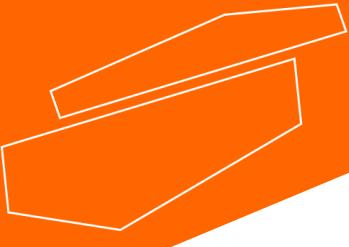
Nota importante per le apparecchiature elettroniche vendute in Italia

Istruzioni sulla protezione ambientale e sullo smaltimento dei dispositivi elettronici:



Le apparecchiature elettriche ed elettroniche contrassegnate con questo simbolo non possono essere smaltite come rifiuti urbani.

In conformità con la Direttiva 2012/19 / UE, gli utenti dell'Unione Europea di apparecchiature elettriche ed elettroniche hanno la possibilità di restituire i propri RAEE per lo smaltimento al distributore o al produttore di apparecchiature dopo averne acquistato uno nuovo. La rimozione illegale di apparecchiature elettriche ed elettroniche è punibile con una sanzione amministrativa.



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