

Instruction Manual

VWR® Blue Transilluminator

European Catalogue Number: 730-1467



Legal Address of Manufacturer

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Country of Origin

UK.

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Safety Instructions

Safety Practices

This document describes the general safety practices and precautions that must be observed when operating a VWR® Blue Transilluminator.

This advice is intended to supplement, not supersede, the normal safety codes in the user's country. The information provided does not cover every safety procedure that should be followed. Ultimately, maintenance of a safe laboratory environment is the responsibility of the user and the user's organisation.

Please consult all documentation supplied with the VWR® Blue Transilluminator before starting to work with the instrument. Carefully read the safety information in this document and in the other documentation supplied. When setting up the instrument or performing analysis or maintenance procedures, strictly follow the instructions provided.

Warning Notices

Within this User Guide WARNINGS are used to highlight information or instructions that **must** be followed in order to avoid personal injury to yourself or other people in the vicinity, e.g. switch off the mains voltage and remove the mains cord before cleaning.

WARNINGS appear as below:

 WARNING	Switch off the mains voltage and remove the mains cord before cleaning.
 WARNING	Ensure that all instrument users read and understand the precautions listed below.
 WARNING	You are advised to post a copy of the precautions near to or on the instrument itself.

Precautions

The following precautions must be observed when using a VWR® Blue Transilluminator System:

- Be sure that the voltage of the VWR® Blue Transilluminator corresponds to the voltage available where it is to be installed.
- This LED transilluminator is suitable for research use only.
- In principle, using instrument normally won't injure user's eyes, skins, and samples. However, 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; it does not guarantee protection for other light resource such as UV. Amber filter is designed to guarantee the safety of person working at the LED transilluminator only.

General Operating Conditions

VWR® Blue Transilluminator 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

Whenever circumstances arise that mean a VWR® Blue Transilluminator may be unsafe, make it inoperative. In particular, a VWR® Blue Transilluminator may be unsafe if it:

- Shows visible damage.
- Fails to perform the intended measurement.
- Has been subjected to severe transport stresses.
- Has been subjected to prolonged storage in unfavorable conditions.

Environmental Conditions

VWR® Blue Transilluminator should only be used under the following conditions:

- Indoors.
- At altitudes below 2000m.
- In ambient temperatures between 5°C and 40°C.
- With relative humidity below 80% for temperatures up to 31°C, decreasing linearly to 50% relative humidity at 40°C.
- Electrical supply fluctuations not exceeding +10% of the nominal voltage.

 WARNING	The protection provided by the equipment may be impaired if the environmental conditions do not lie within these parameters.
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Electrical Safety

The VWR® Blue Transilluminator must be correctly connected to a suitable electrical supply. The supply must have a correctly installed protective conductor (earth or ground) and must be installed and checked by a qualified electrician before connecting the instrument.

 WARNING	Any interruption of the protective conductor inside or outside the VWR® Blue Transilluminator, or disconnection of the protective conductor terminal is likely to make the instrument dangerous. Intentional interruption of the protective conductor is prohibited.
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 WARNING	Ensure that the mains supply socket on the instrument is not obstructed, i.e. leave a gap to allow easy disconnection of the mains cord.
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 WARNING	If the mains power cord has to be replaced, ensure that the replacement cord is appropriately rated and approved for the intended use.
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When working with the Blue transilluminator:

- Connect the instrument to a correctly installed mains power outlet that has a protective conductor connection.
- Do not operate the instrument with any covers or internal parts removed.
- Do not attempt to make internal adjustments or replacements except as directed in the VWR® Blue Transiluminator documentation.
- Disconnect the instrument from all live voltage sources before opening it to make any adjustments, replacements, maintenance or repair. If the opened instrument must be operated for further adjustment, maintenance or repair, this must only be done by a supplier's Service Engineer.
- If it is possible that the instrument is no longer electrically safe for use, make the instrument inoperative and secure it against any unauthorised or unintentional operation. The electrical safety of the instrument is likely to be impaired if:
 - It has any signs of visible damage.
 - If it has been subjected to prolonged storage in unfavourable conditions.
 - If it has been subjected to severe stress during transportation.

Unpacking a VWR® Blue Transilluminator

Removing from the Packaging

Visual Inspection

Upon taking delivery of a new VWR® Blue Transilluminator:

- Check the contents of the cartons as they are unpacked against the contents listed on the packing list
- Check each item on the packing list for damage and document any damage carefully
- If any items are missing or damaged, contact your local distributor immediately

Unpacking

Carefully unpack the transilluminator and the shield 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 glass viewing surface.

PACKAGE CONTENTS
Blue LED transilluminator Sliding Tray Mains power cord - suitable for country of use Power 24V DC 1.67 A power adaptor

Overview

Blue Light transilluminators are often used as an alternative to a UV transilluminator when users wish to use 'Safe dyes' instead of Ethidium Bromide.

A blue light transilluminator is a 'safe' light source, in that the user is not exposed to harmful UV radiation and samples are free from photoniccking.

The VWR® Blue Transilluminator can be used instead of the UV transilluminator in all VWR® Gel Documentation Imager2 and Imager chemi Premium systems.

VWR® Blue Transilluminator can be used for gels up to 20x16cm. This model uses side mounted 470nm LED arrays for illumination.

The VWR® Blue Transilluminator can also be used as a stand alone unit.

VWR® Blue Transilluminator

The VWR® Blue Transilluminator is to be used with a gel documentation system or as a standalone system.

Specifications	
Viewing surface (mm)	200 (W) x 160 (D)
LED arrangement	Matrix for two sided illumination
Wavelength (nm)	470nm
LED lifetime	50,000 hrs
Amber filter	Filter shield with metal frame
Power	DC 24V 0.65A
Dimensions	330 (D) x210 (W) x90 mm
Weight	2.3kg



TYPICAL VWR® BLUE TRANSILLUMINATOR - FRONT

Installation

Standalone installation

1. The instrument must be placed on a bench leaving at least 10cm 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 24 V DC voltage.

Installation with a VWR Documentation System

1. Insert the sliding tray into the darkroom using the runners. Then place the transilluminator on top of the tray making sure the power and intensity switches are facing the front of darkroom.
2. Connect the flying mains lead from the darkroom into the power supply of the VWR® Blue Transilluminator. Place the power supply behind the VWR® Blue Transilluminator and on the tray.



REAR OF VWR® BLUE TRANSILLUMINATOR- CONNECTING POWERSUPPLY

3. Plug the power plug jack into the back of the VWR® Blue Transilluminator. Then switch the transilluminator ON. Adjust the intensity high (100%) and low (50%) of the blue LED arrays.



FRONT OF THE VWR® BLUE TRANSILLUMINATOR- POWER ON/OFF AND ADJUSTING INTENSITY

Operating

1. Place gel/sample in a central position on the transparent glass support area. It is recommended that the gel is placed on a gel tray to protect the glass surface from cuts and scratches.

Note: It is recommended that gloves be worn to prevent skin contact with gel and staining agents.

2. Press the ON/OFF switch to the ON position. The LEDs within the unit will begin glowing beneath the glass support. Adjust the intensity to 100% or 50%
3. If using the VWR® Blue Transilluminator within a VWR® Gel Documentation system use the VWR® image capture software to capture an image of the gel/sample.
4. If using the VWR® Blue Transilluminator as a standalone unit after viewing the sample turn the transilluminator OFF.

Operator Maintenance

Looking After a VWR® Blue Transilluminator

A VWR® Blue Transilluminator Instrument does not require regular maintenance or calibration other than occasional checking and cleaning.

Cleaning a VWR® Blue Transilluminator Instrument

 WARNING	Switch off the instrument and unplug the mains power cord from the electrical supply.
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The outside of the VWR® Blue Transilluminator Instrument can be cleaned using a soft lint-free cloth, moistened if required with a little water. Mild detergent may be used, if necessary. Do not use abrasive or solvent based cleaning materials. Always perform a patch test on an inconspicuous area before you clean the entire surface.

The glass surfaces which may become contaminated with biochemical materials/reagents the glass can be cleaned using a soft lint free cloth and a non-fluorescent cleaning agent such as; a neutral detergent or 70% ethanol solution.

Avoid spilling any liquid into the body of the instrument and clean any external spills immediately. If any liquid enters the main body of the instrument, make the instrument inoperative and contact the supplier.

Contacting VWR International

Technical service

Web Resources

Visit the VWR website at www.vwr.com for:

- Complete technical service contact information
- Access to the VWR Online Catalogue, and information about accessories and related products
- Additional product information and special offers

Contact us For information or technical assistance contact your local VWR representative or visit. www.vwr.com.

Warranty

VWR warrants that this product will be free from defects in material and workmanship for a period of two (2) years from date of delivery. If a defect is present, VWR will, at its option and cost, repair, replace, or refund the purchase price of this product to the customer, provided it is returned during the warranty period. This warranty does not apply if the product has been damaged by accident, abuse, misuse, or misapplication, or from ordinary wear and tear. If the required maintenance and inspection

services are not performed according to the manuals and any local regulations, such warranty turns invalid, except to the extent, the defect of the product is not due to such non-performance.

Items being returned must be insured by the customer against possible damage or loss. This warranty shall be limited to the aforementioned remedies. IT IS EXPRESSLY AGREED THAT THIS WARRANTY WILL BE IN LIEU OF ALL WARRANTIES OF FITNESS AND IN LIEU OF THE WARRANTY OF MERCHANTABILITY.

Compliance with local laws and regulations

The customer is responsible for applying for and obtaining the necessary regulatory approvals or other authorisations necessary to run or use the Product in its local environment. VWR will not be held liable for any related omission or for not obtaining the required approval or authorisation, unless any refusal is due to a defect of the product.

Disposal

Disposing of a VWR® Blue Transilluminator



This equipment is marked with the crossed out wheeled bin symbol to indicate that this equipment must not be disposed of with unsorted waste.

Instead it's your responsibility to correctly dispose of your equipment at lifecycle -end by handling it over to an authorized facility for separate collection and recycling. It's also your responsibility to decontaminate the equipment in case of biological, chemical and/or radiological contamination, so as to protect from health hazards the persons involved in the disposal and recycling of the equipment.

For more information about where you can drop off your waste of equipment, please contact your local dealer from whom you originally purchased this equipment.

By doing so, you will help to conserve natural and environmental resources and you will ensure that your equipment is recycled in a manner that protects human health.

Thank you

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