

## 5. Maintenance



Always disconnect the power cord for cleaning. When cleaning the surfaces of the instrument, use a damp cloth with mild detergent if needed. Do not use any corrosive solutions that could damage plastic.

## 6. Patent and Licensing

The SmartBlue™ transilluminator uses technology under license from Clare Chemical Research, Inc. and is covered under the following US and International Patents.

COUNTRY	FILING DATE	ISSUE DATE	SERIAL NO.	PATENT NO.
US (United States)	3/6/1998	3/6/2001	09/036034	6,198,107
US (United States)	1/2/2001	3/28/2003	09/753783	6,512,236
US (United States)	12/6/2002	7/05/2005	10/313892	6,914,250
EP (Europe)	3/6/1998	5/30/07	98910195	0 965 034
DE (Germany)	3/6/1998	5/30/07	98910195	69837839.3-08
FR (France)	3/6/1998	5/30/07	98910195	0 965 034
CH (Switzerland)	3/6/1998	5/30/07	98910195	0 965 034
UK (United Kingdom)	3/6/1998	5/30/07	98910195	0 965 034



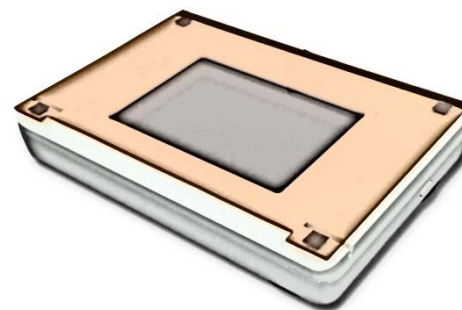
# SmartBlue™

## Blue Light Transilluminator

### Operating Manual

#### Version 1.1

For research only



# Benchmark Scientific

P.O. Box 709 Edison, NJ 08818 USA  
Ph: 908-769-5555 EM: info@BenchmarkScientific.com

## Contents

1. Introduction.....	2
1.1 Included Component List.....	2
1.2 Accessories / Related Products.....	3
1.3 Product Diagram .....	3
1.4 Specifications.....	4
2. Installation / Set Up .....	4
3. Warnings.....	5
4. Gel Viewing .....	6
5. Maintenance.....	7
6. Patent and Licensing .....	8

Thank you for purchasing the Accuris SmartBlue™ Blue Light Transilluminator. The SmartBlue is for research only and not designed for medical, clinical or diagnostic applications

This operating manual includes a product introduction as well as operating and safety information. Before using the SmartBlue, please read this manual in its entirety and be sure to fully understand the features and methods for proper operation. Keep this manual for future reference.

Please check the packing list when first opening the box, and if there are any parts missing, damaged, or incorrect, please contact your distributor or Benchmark Scientific's Customer Service Department at 908-769-5555 or by email [info@benchmarkscientific.com](mailto:info@benchmarkscientific.com).

## 4. Gel Viewing

The SmartBlue will illuminate samples stained with dyes that fluoresce under blue (465nm) light.

It is compatible with many EtBr alternative stains available such as Accuris SmartGlow™ (see [www.accuris-use.com](http://www.accuris-use.com) for details), SyBr Green, SyBr Safe, Green Glo™, Gel Green, etc.

Follow the instructions included with the stain. Gels are typically prestained (stain added to gel material before casting), post stained in a diluted solution, or the stain can be added to the sample before separation.

For best separation and viewing results, keep the gel thickness to 5mm or less.

### Procedure:

- 1) Make sure the lights of the SmartBlue are off.
- 2) Remove the amber filter cover
- 3) After electrophoresis, it is recommended to carefully remove the gel from any plastic tray that has been used in the gel running tank.
- 4) Carefully place the stained gel onto the glass viewing surface, starting from one edge to .
- 5) Place the amber filter cover on top of the transilluminator surface so the 4 rubber feet align with the indents or place the cover tabs into the slots to use the cover at an angle.
- 6) Turn on the transilluminator power and the bands should be seen glowing.

### 3. Warnings



To avoid electrical shock, do not use this product with wet hands, do not submerge in liquids.



Please carefully read this instruction manual before operation to avoid any personal injury. Only trained laboratory personnel should operate the system.



This product uses high intensity LED lights. Do not stare directly at the viewing surface without the amber cover in place.



There are no serviceable parts inside the SmartDoc. Do not open the outer housing, as this may damage the product.



The power switch is located on the side of the housing. Press once to turn on, press again to turn off. If left on for 5 minutes, the light turn off automatically to save power.

## 1. Introduction

The SmartBlue is a Blue Light Transilluminator used for the detection of nucleic acids or other molecules. The SmartBlue emits light from a viewing surface with wavelength of 465nm, which is ideal for the excitation of many of the green dyes used to stain nucleic acids or proteins in electrophoresis gels. An amber colored filter cover is included to block the blue wavelength and allow optimal viewing of target samples, stained with fluorescing dye.

The filter cover can be set horizontally on top of a gel for viewing, or can be positioned at an angle to allow access to the gel for cutting out bands, or other manipulations.

Before use, please read this operating manual in its entirety.

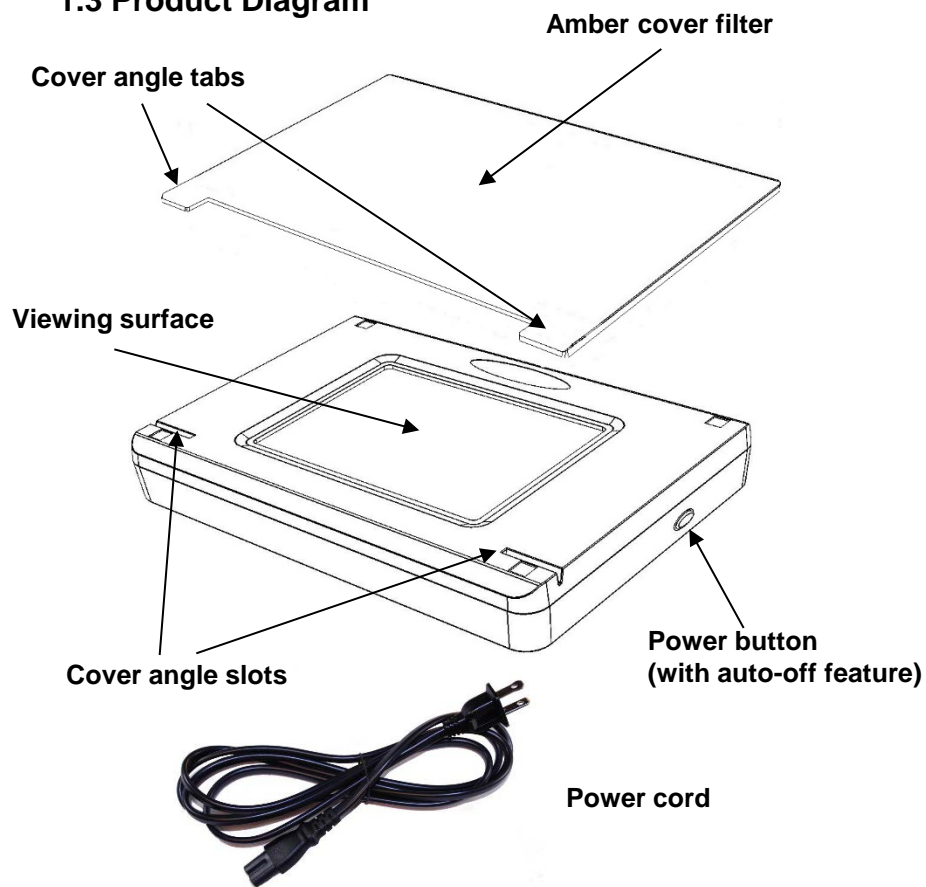
### 1.1 Included Components

Main transilluminator unit	1 pc
Power cord	1 pc
Amber filter cover	1 pc
User Manual	1 pc

## 1.2 Accessories, Related Products

E4000-FC	SmartBlue Replacement Filter Cover
E4500-LD	SmartGlow™ Loading Dye with Safe Green Stain, 1.0ml
E4500-PS	SmartGlow™ Safe Green Pre Stain, 1.0ml

## 1.3 Product Diagram



## 1.4 Product Specifications

Light Source	High intensity LED's with diffuser system
Output Wavelength	Peak at 465 nm
Filter Cover	Amber, PMMA material
Viewing Surface	17 x 12cm / 6.6 x 4.75
Exterior Dimensions (W×D×H)	305mm×215mm×55mm 12.8 x 8.5 x 1.9 inches
Net Weight	1.2 kgs / 2.6 lbs
Electrical	Universal 100V to 240V, 50/60Hz

## 2. Installation / Set Up

Place the SmartBlue transilluminator on a smooth, level surface. For optimal viewing performance, do not use the SmartBlue near windows or in an area of bright ambient light.

Connect one end of the power cord to the instrument and the other end to an appropriate outlet. Make sure that the plug supplied matches the outlet type. The SmartBlue can accept voltage within the range of 100 to 240VAC.