

## BPI RGB Spectrometer™

(with RS-232 Port)

For use only by qualified personnel in a laboratory environment. For maximum protection against UVA energy, wear UV safety glasses & avoid looking directly at UV light source.

# Specifications

The BPI RGB Spectrometer (BPI# 19504) is an invaluable aid for matching the colors of tinted lenses or filters. It may also be used to check CIE or (L\*,a\*,b\*) color coordinates, although with less precision than would be available from the BPI Spectrometer. Color matching could be attempted while using the RGB Spectrometer in "stand alone" mode, however to be used as a color matching device, it really should be used with a personal computer running the Companion Program.

The system power pack requires 115 Volts (220 volt BPI# 219518) 50/60 Hz and is fuse protected by a 1 Amp, 250 V glass fuse. Components are UL and CSA Recognized.

HEIGHT	WIDTH	LENGTH	VOLTAGE	WEIGHT	FUSE	AMPERAGE
5 in.	6.25 in.	6.75 in.	115 or 220 v.	6 lbs	1 amp/250v.	1 amp
12.7 cm	15.87 cm	17.14 cm		2.72 kg		
LENS CLEARANCE		TEST RANGE	THE SET-UP KIT INCLUDES THE FOLLOWING PRODUCTS:			
0.75 in.	400 nm to 700 nm (Visible)	• Instruction manual • Power Pack	• RS-232 cable • Companion Program CD.			
19.05 mm						

## Unpacking

When unpacking your instrument, please check to ensure that no concealed damage occurred in transit. If such is noted, save the shipping carton and immediately notify the shipping company's damage control inspector in your area so a claim may be processed. Failure to do this may void any future claim and replacement. Also, call BPI Customer Service so arrangements for a replacement may be made.

## Setting Up

To set up your BPI RGB Spectrometer™ with RS-232 port, just connect the power pack to a standard outlet convenient to your work area but away from the immediate vicinity of the lens coloring operation. Although BPI's meters are stable and sturdy, they may be adversely affected by excessive humidity and heat.

## Operation.

To use the Companion Program, install it from the CD into your computer and run it. The BPI RGB Spectrometer's power pack should be plugged into a convenient outlet. Check to be sure that there are no lenses in the meter's light path and turn it "on" by the switch at the rear. The meter runs a calibration routine to check that the Red, Green, Blue and Tv color channels have adequate illumination. This requires about ten seconds and a display of the counts available for each color is then shown. Pressing "Calibrate" at any time will repeat this check. Pressing "Read" will cause the meter to read the color of any lens or filter placed in the light path. Each reading requires about ten seconds and the color coordinates will then be displayed. With the RS-232 cable connected to the Personal Computer (perhaps through a USB adapter), the PC will then control the meter and take readings. To use the PC program, you must select a Standard Color to match (either a sample lens or perhaps one lens of a pair that you have tinted). Place the lens in the light path and click "Read Standard". A color swatch and color

coordinates will appear in the standard area. The Sample Color, the lens with the color that you want to correct to become the standard color, is then placed in the meter's light path and "Read Sample" is clicked. The sample area on the PC's screen will then show the sample's information. To color correct the sample to the standard, you start a correction sequence and follow the information on the screen. A "Help" file exists in the Companion Program to provide more detailed information. The corrector tints, Red, Yellow, Blue and Gray Correction are available from BPI. A neutralizer appropriate to the lens material and coating may also have to be used. Generally, if the standard is too saturated (closer to the boundary of the CIE Chart than the sample), a lot of neutralization will be required and the colors may never match.

In the event of any display or computer malfunction, press "CALIBRATE" to restore normal operation.

The RS-232 port and the cable are designed to interconnect the BPI Spectrometer™ with a PC. A CD-ROM is supplied with the unit to allow them to communicate.

## PC System Requirements

System requirements: IBM PC-compatible computer. 486 processor or better. 12 MB memory. 5 MB disk space. RS-232 serial port. SVGA (800 x 600) display, preferably color. Mouse or other pointing device. CD-ROM drive. (For installation). Windows 95/98, or NT 4.0.

## Installation of Software:

- Insert the CD-ROM into the CD-ROM drive
- From the START menu, select RUN
- Enter (CD-ROM drive letter):setup.exe.

Choose OK and follow the instructions in the installation program. Re-booting may be necessary to complete the installation. 'READ' and "CALIBRATE" may be executed from your PC. All information can be saved and printed out to your PC's printer.



## Replacement Parts

1 Amp, 250 Volt Fuse:  
BPI #59905