BPI® Mini Meter™

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® Mini Meter™ - Battery Operated (BPI#19503) is an invaluable aid for quality control of tinted lenses or lenses treated for UV absorption. Variations in density and hardness of CR-39® lenses typically affect the ability to accept tint. Two lenses that have been in the same tint tank the same amount of time may not come out equally tinted or with equal UV protection. IT IS THE LENS PROCESSOR'S RESPONSIBILITY TO VERIFY UV PROTECTION and a meter such as this is a quantitative means of testing.

The meter's digital display indicates the percentage of visible light, Tv, and ultraviolet light (in the bands from 400 nm to 700 nm and 320 to 400 nm) passing through a lens. It is a quick and accurate way to check the UV and visible transmission characteristics of lenses.

The system requires a 9 Volt Battery as a power source.

HEIGHT	WIDTH	LENGTH	VOLTAGE	WEIGHT	LENS CLEARANCE	TEST RANGE
3.5 in.	3.25 in.	5.5 in.	9 VDC	0.6 lbs	0.75 in.	350nm to 400nm (UVA) & 400nm to 700nm (Visible)
8.9 cm	8.3 cm	14 cm		0.27 kg	19.05 mm	
THE SET-UP KIT INCLUDES THE FOLLOWING PRODUCTS:						
• Calibration lens			• 9V Battery		• Instruction manual	

The meter is for indoor use only at altitudes below 2000 meters. Ambient temperatures must be between 5°C and 40° C. Maximum relative humidity is 80% for temperatures up to 31°C, decreasing linearly to 50% relative humidity at 40° C. This meter is designed for pollution degree 2.

Unpacking

When unpacking your photometer, 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.

UVA Emanation

The UVA energy (320 to 400nm) that is emitted by this unit is also emitted by sun and sky light and is, therefore, a natural component of our environment. However, over exposure to UVA energy may produce eye irritations and permanent eye injury.

FOR MAXIMUM PROTECTION AGAINST UVA ENERGY, WEAR UV SAFETY GLASSES & AVOID LOOKING DIRECTLY AT UV LIGHT SOURCE.

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Setting Up

To set up your BPI® Mini Meter™, just clip on the 9V battery and insert it into the battery compartment. Although BPI®'s meters are stable and sturdy, they may be adversely affected by excessive humidity and heat. Your meter arrived with a calibration lens . This lens has been treated with BPI®'s Ultraviolet Diamond Dye™ 400 nm.

DIOPTER COMPENSATION TABLE		
DIOPTER	2 mm thick lens CAL TO:	10 mm thick lens CAL TO:
⊕ 10	85	80
⊕ 8	88	83
⊕ 6	91	86
⊕ 4	94	89
⊕ 2	97	92
0	100	95
⊖ 2	103	98
⊖ 4	106	101
⊖ 6	109	104
⊖ 8	112	107
⊖ 10	115	110

TO READ % UV TRANSMISSION UP TO ONLY 380nm: CALIBRATE UNIT TO 31. Do not use this setting for visible readings.

Display

RIGHT BUTTON PRESSED
The display shows the percentage of UV light between 350 and 400 nm passing through the lens

LEFT BUTTON PRESSED
The display shows the percentage of visible light between 400 and 700 nm passing through the lens

Operation

The BPI® Mini Meter™ has two push-button switches and a CALIBRATE knob.

Be sure that the photocell is not obstructed; calibration is done without any lenses in place. While pushing a button, calibrate by turning the knob until the liquid crystal display shows a reading of 100. The UV/Visible BPI® Mini Meter™ is now calibrated for 100% visible or UV light transmission, depending on which button was pushed .

Place the lens to be tested in the gap between the light sources and the photocell. Press the appropriate pushbutton and the unit will then display the percentage of visible or UV transmission.

NOTES: For the most accurate results, the calibration procedure should be performed just before a transmission measurement. Lenses with power may be compensated by calibrating to a number other than 100%, using the table on the bottom of the meter. (Reproduced on the left). Thick lenses are compensated differently from thin ones. For approximate UV readings to 380 nm instead of 400 nm, calibrate the meter to 31% instead of 100%. When the meter will no longer calibrate to 100%, replace the battery.

Warning!

If this equipment is used in a manner other than that specified by Brain Power Incorporated, the protection provided by the equipment may be impaired.

To clean the meter, wipe with a damp cloth.

Questions?..

For information about any BPI® product and to order supplies, please give us a toll-free call at the number shown for your area.

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BPI# 19503 (9 VDC)