

# BPI® Mini Gradient™ System

For use only by qualified personnel in a laboratory environment.

Due to high operating temperature, access should be restricted.



BPI® Mini Gradient™ System

## Specifications

The BPI® Mini-Gradient™ System gives the same 4-Stroke gradient function minus the automatic timing feature. While the unit is running, the lenses are being lowered to 4 different levels in the dye bath. For use only by qualified personnel in a restricted laboratory environment.

The gradient is for indoor use at altitudes below 2000 meters in a maximum ambient temperature of 40°C. The maximum relative humidity near the gradient should be 92%. Power supply mains fluctuations should be no more than ±10%. The gradient is in installation category II with pollution degree (2). If the equipment is used in a manner not specified in this manual, the protection provided by the equipment may be impaired.

**NOTE: Be sure always to use the ground wire on the power cord for safe operation; never bypass it.**

The ground symbol is: 

## Unpacking

When unpacking your gradient system, 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

Fit the 12" stand (pole) into the gradient opening on the top of the unit. A mounting flange is provided in cases where there is no gradient opening on the dye system (most BPI® systems of recent manufacture have a gradient opening). Use the flange to mount the gradient either directly onto the work counter or onto a piece of plywood or similar material which can then be slid underneath the dye system. The weight of the dye system will hold the gradient in place. It is important in all cases that the dye system be LEVEL.

Bolt one arm of the scissors to the top of the pole; fasten the other arm to the underside of the gradient head. Notice as you look at the front of the gradient unit, that there is a slot in the face of it. The 1/4" rod is to be screwed into this slot. Slide the L-rod through the swivel which is attached to the 1/4" aluminum rod. The bottom of the L-rod forms a right angle to hold the Lens Holder II™ in place. The thumbscrew tightens the swivel to secure the L-rod. Be careful not to over-tighten or you may strip the threads of the swivel.

Adjust the "L" rod which holds the lens holder until it is in the vertical position and swinging freely. Then plug the gradient into a standard 115 volt - 60Hz outlet or into the receptacle at the back of your BPI lens coloring system.

On the Mini-Gradient™ unit, turn the ON-OFF switch on. The gradient should begin motion and continue until the switch is turned off. This should be the only test needed.

## Using The Gradient

The Mini-Gradient™ System runs when the switch is in the I position. For rough estimated times only, try 8 minutes for the dark colors and about 3 minutes for light gradient tints. These times are only suggestions and the user will quickly develop his/her own time selections.

The gradient is supplied with a Lens Holder II™, which has a top that slides onto the "L" rod. Mount the lenses upside down, taking care to align the gradient axis with the horizontal axis of the lenses. Lenses that are cut and edged are preferable to those which are not; however, better results may be obtained with complex shapes if they are tinted gradient before they are edged to aid in the alignment of the two

axes. Adjust the starting position of the lens holder so that the bottom edge of the lens is about 1/4" above the surface of the dye.

The lens gradation should extend from the top of the lens to about the middle of the lens. Overall height adjustment is made by moving the "L" rod up or down. This adjustment should be made on the first cycle into the dye, and then secured by the thumbscrews.

The amount of vertical movement depends on the position of the "L" rod on the 1/4" aluminum rod. The further out on the aluminum rod the "L" rod is positioned, the greater the vertical distance (or dip) traveled and the more subtle the gradient. Due to evaporation, the dye level will change somewhat from one operation to another, so it will probably be necessary to make occasional adjustments in the starting height of the arm. It is advisable to add water to the dye from time to time to bring the level back up to a convenient height for the gradient.

## A Few Tips

For single gradients, a more pleasing cosmetic appearance and reduction in edge glare may be obtained by a quick total immersion of the lenses in the dye solution for a few seconds.

If lines of demarcation are noted, decrease the temperature. If surface residue of dye remains on the lens, cold Neutralizer II™ will effectively remove it. Readjusting the "L" rod about 5 mm about half way through the coloring operation will provide a more subtle gradient.

For more information on the art of coloring lenses, refer to the booklet entitled "The Practical Guide to Lens Tinting".

- This gradient should be cleaned with a damp cloth.

## Questions? Ordering...

If you have any questions about the use of your gradient system or any other BPI® product, or would like to order supplies, please give us a toll-free call using the number for your area.

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HEIGHT	WIDTH	LENGTH	VOLTAGE	WEIGHT	FUSE	AMPERAGE
5 in. (21 in on pole)	5 in.	4.75 in.	120v. 60Hz.	7 lbs	1 amp/250v.	0.7amp
12.7 cm (53 cm on pole)	12.7 cm	12.06 cm		3.175 kg		
THE SET-UP KIT INCLUDES THE FOLLOWING PRODUCTS:						
• One nylon swivel	• One BPI Lens Holder II™	• One scissor arm and bolts				
• Two thumbscrews	• One L-rod	• Gradient pole. With or without flange				
• One 1/4 inch rod	• One gradient tip	• Instruction manual				

BPI® Mini Gradient™ (110v.)