

## BPI® Digital Mini Tank 4™

For use only by qualified personnel in a laboratory environment.

Due to high operating temperature, access should be restricted.

BPI® does not warrant the use of non-BPI® products in this instrument.

Turn off the unit when you have finished tinting for the day. Never allow the tanks to run dry. Do not leave unattended.

## Specifications

The BPI® Digital Mini Tank 4™ System (BPI#9810) is a compact arrangement of 4 pint sized mini tanks. The chassis and liner pan are all stainless steel. Like most BPI® tinting units it has provisions for mounting a single optional Gradient Lensor. The system requires 120 volt, 50/60 Hz (220v, #209811) and is circuit breaker protected at 20 amp. Components are UL and CSA recognized.

The tinting unit is for indoor use at altitudes below 2000 meters in a maximum ambient temperature of 40°C. The maximum relative humidity near the tinting unit should be 92%. Power supply mains fluctuations should be no more than ±10%. The tinting unit 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:

The tinting unit should be cleaned with a damp cloth. Before using any cleaning or decontamination method except that recommended by Brain Power Inc., users should check with Brain Power Inc. that the proposed method will not damage the equipment.

## Unpacking

When unpacking your tint 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. Please verify that you have received all the items listed above.

STAINLESS STEEL	HEIGHT	WIDTH	LENGTH	VOLTAGE	WEIGHT	CIRCUIT BREAKER	AMPERAGE	TRANSFER FLUID
4 1-pint mini tanks	7.75 in.	9.75 in.	14 in.	120v. 50/60 Hz.	20 lbs.	20 amps. 250v.	11 amps.	2 qts
4 .5 liter mini tanks	19.68 cm	24.77 cm	35.6 cm	220v. 50/60 Hz.	9.07 kg		7 amp	2 liter
THE SET-UP KIT INCLUDES THE FOLLOWING PRODUCTS:						SYSTEM LAYOUT		
<ul style="list-style-type: none"> <li>BPI® Heat Transfer Fluid GL 77</li> <li>BPI® Lens Holder II™</li> </ul>			<ul style="list-style-type: none"> <li>Manual &amp; instructions</li> <li>4 mini tanks &amp; thermal tank lids</li> <li>1 Adapter plate</li> <li>Precision thermometer</li> <li>HTF siphon pump</li> </ul>					

## Setting up

Place your system on a LEVEL work surface convenient to an electrical receptacle. Make sure that this unit is no closer than 3 inches from the nearest wall. Make certain all switches are OFF.

Pour 2 quarts of heat transfer fluid over the heating element into the base unit BEFORE turning ON any switches. If heat is turned on before the heat transfer fluid is added and the tint tanks are in place so the element is submerged, element failure may result due to excessive temperature of the element.

Place stainless steel mini tanks into their adapter plate and into the main unit. Reserve one tank for Neutralizer II™. Fill the remaining tanks one-half full with water (distilled is preferred for grays and browns) and add one color of tint to each tank. BPI® tints are sold in concentrated solutions and are to be diluted to obtain the working solution. FOLLOW the instructions that come with the tint for proper mixing. Add a little water to each tint bottle and shake well to remove the residual pigment in the bottle; add to the corresponding tint solution. Add water to the tint tanks to achieve the correct working level.

The monitored tank (with temperature probe) must never be used for Neutralizer II™ or UV solutions—just water based tints

Pour Neutralizer II™ (full strength) into the reserved tank and Lens Prep II™ (diluted to 1 part to 32 parts water) into a separate container. This last solution is used heated in larger tint machines, but works well at room temperature. Most users of this size unit prefer to have another color on line rather than heat the Lens Prep II™ working solution.

## Heating up

The system has an I/O circuit breaker switch and a temperature control, with indicator lamp. The lamp in the temperature controller indicates when power is being applied to the heating element. Plug the unit into a properly grounded 120 volt electrical receptacle (The 220 volt model is shipped without a plug and requires a qualified technician for installation). Plug temperature probe into back of unit and insert probe into right rear tank.

Turn the switch to I.

The unit heats quickly. Initially set the temperature controller to 195° F by pressing "set" and then pushing the "up" arrow. Remove the lids.

When the "out" of range lamp goes out, the unit has reached the temperature.

For normal tinting use temperature settings of 200-210° F (190-200° F for gradients and light tints).

It is recommended that a quality lab thermometer be used to monitor the tint temperature. When topping off the tanks with water be sure to top off all the tint tanks. Never top off the monitored tank without topping off the others!



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## Lens Tinting

- Place one pair of lenses in lens holder.
- Check the temperature of tints with the supplied thermometer before immersing lenses into tint bath. Immerse in Lens Prep II™ for 30 seconds.
- Transfer to tint bath still wet. Take care to minimize the introduction of Lens Prep II™ in the tint bath as it may cause color shifts. Tint times vary from less than one minute to greater than 10 minutes.
- Place back into the Lens Prep II™ for a few seconds.
- Wash lenses using tap water and dry with a soft, lint-free cloth or Kaydry.
- Check for density and color.

## Neutralizer

BPI® Neutralizer II™ is for removing color from CR-39™ lenses ONLY. Read precautions below.

- Heat Neutralizer II™ in an approved tint unit. Do not exceed 210° F.
- Dip lens to be neutralized into the heated solution until the desired amount of color has been removed.
- Remove lens and rinse in cool water.
- Lens may now be immersed in BPI® Lens Prep II™ and re-tinted.

## Precautions

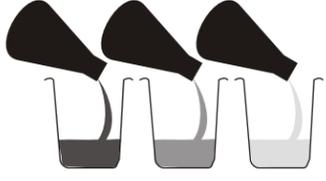
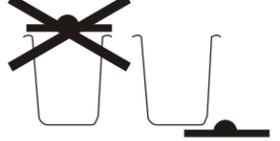
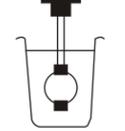
Do not use Neutralizer II™ in either of the right side tanks, including the monitored tank.

Use Neutralizer II™ in a well ventilated area or with a vent hood. NEVER USE ON OPEN FLAME OR ELECTRIC BURNERS! If fluid contacts eyes, immediately wash with water. If irritation persists, contact physician. Harmful or fatal if swallowed. Product is combustible and may become flammable if directions and precautions are not followed

## Questions? Ordering....

If you have any questions about the use of your lens coloring instrument, please refer to our pamphlet, "The Practical Guide to Lens Tinting" for general information. To place orders or to receive technical support, please call your local BPI® office.

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 <p><b>1</b> SHAKE BPI red bottle for 30 seconds</p>	 <p><b>2</b> EMPTY tint into a clean tank</p>
 <p><b>3</b> RINSE remaining tint from bottle three times</p>	 <p><b>4</b> FILL tanks to working level</p>
 <p><b>5</b> REMOVE all lids from all tanks</p>	 <p><b>6</b> RAISE temperature to 93 - 96° C (200 - 205° F). Let stabilize*</p>
 <p><b>7</b> IMMERSE lenses slowly and tint to required density</p>	 <p><b>8</b> STIR TINTS FREQUENTLY When in doubt always check the temperature!</p>
<p><small>1. 93 - 96° C (200 - 205° F) is critical. This is the optimum temperature for tinting lenses and allows the correct migration of the different size pigments that make up a typical BPI tint. The lens material will not accept the tints correctly unless this temperature level is maintained.</small></p> <p><small>2. Some evaporation is typical and will not harm the tints. Just add more water and wait for the tint temperature to stabilize.</small></p> <p><small>3. Lower temperature to 82° C (180° F) and cover tanks when not actively tinting. (Remember to raise temperature when you resume tinting).</small></p> <p><small>4. Lens materials vary slightly. (Manufacturer, composition, age, and or coatings). Tinting can be affected. This can be minimized or eliminated by using correct temperatures. If variances occur, refer to the BPI Color Correction Chart.</small></p> <p><small>*Use a lab thermometer to verify temperature. Water boils at 100° C (212° F). Tints will not boil if the temperature is verified correctly. Do not rely solely on the tint unit thermostat.</small></p>	