

BPI Turbo 6™

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® Turbo 6™ System (BPI#9807) is a compact arrangement of six one liter beakers. The chassis and liner pan are all stainless steel. It has provisions for mounting three optional Gradient Lenses. The system requires 120 volt, 50/60 Hz and is circuit breaker protected at 20 amp. Components are UL and CSA recognized. A 220v. unit (BPI# 209808) is also available.

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 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.

TANKS	HEIGHT	DEPTH	LENGTH	VOLTAGE	WEIGHT	CIRCUIT BREAKER	AMPERAGE	TRANSFER FLUID
6 x 1.05 qt.	10.5 in.	11.375 in.	34.25 in.	110v. Or 220v.	40 lbs.	20 amps. 250v. Circuit breaker switch	15 amps. 110v. 8 amps. 220v.	6 qts
6 x 1 L	26.67 cm	29.8 cm	87 cm		16.78 kg			5.676 liter

THE SET-UP KIT INCLUDES THE FOLLOWING PRODUCTS:

- BPI® Lens Prep II™
- BPI® Neutralizer II™
- BPI® Heat Transfer Fluid
- BPI® Lens Holder II™
- BPI® Molecular Catalytic™ tints (One each: gray, blue, yellow, brown, pink, & green)
- Manual & instructions
- 6 glass beakers with 'O' rings
- Adapter plate
- Precision thermometer
- 6 magnetic stirring rods & stirring rod covers
- HTF siphon pump

SYSTEM LAYOUT

SIX 1.05 QUART TANKS (6 x 1 LITERS)

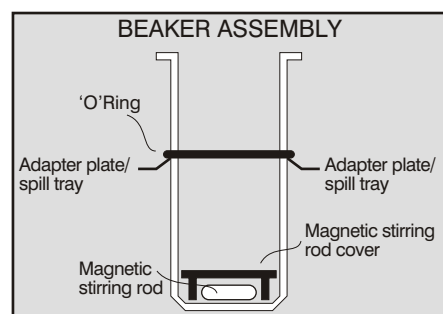
Setting up

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 1½ gallons 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 beakers are in place so that the element is submerged, element failure may result due to excessive temperature of the element.

Place the glass beakers with 'O' rings into the main unit. Place a magnetic stirring rod and a stirring rod cover in the bottom of each beaker. (See beaker assembly diagram). 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, which is about the 600 ml mark on the beakers.

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, a temperature control dial, and an indicator lamp. The lamp above the temperature control dial 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).

Turn the switch to I. The magnetic stirring rods should spin. **IF STIRRING RODS DO NOT SPIN OR SPIN OFF-CENTER IN THE BEAKERS, ROTATE ADAPTER PLATE/SPILL TRAY 180°. BPI LOGO ON THE ADAPTER PLATE SHOULD BE 'RIGHT SIDE UP' AS SEEN FROM THE FROM OF THE UNIT.**

Set the temperature control dial to position 1.

When the thermostat lamp goes out, the unit has reached this low idle temperature.

Gradually increase temperature settings until the tint solution is heated to 200-212° F (190-200° F for gradients and light tints). Higher temperatures tint more quickly.

It is recommended that a quality lab thermometer be used to monitor the tint temperature since it will DIFFER from the thermostat setting which is controlling the temperature of the heating element area.



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

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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- SHAKE** BPI red bottle for 30 seconds
- EMPTY** tint into a clean tank
- RINSE** remaining tint from bottle three times
- FILL** tanks to working level
- RAISE** temperature to 60 - 70°C. (140 -160°F) Let stabilize
- REMOVE** all lids from all tanks
- RAISE** temperature to 93 - 96° C (200 -205°F). Let stabilize*
- IMMERSE** lenses slowly and tint to required density
- STIR TINTS FREQUENTLY** When in doubt always check the temperature!
The correct temperature for tinting is 94-97°C. (200-208°F). Do not immerse lenses into the tint until this temperature is attained.

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.

2. Some evaporation is typical and will not harm the tints. Just add more water and wait for the tint temperature to stabilize.

3. Lower temperature to 82° C (180°F) and cover tanks when not actively tinting. (Remember to raise temperature when you resume tinting).

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.

*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.