

**Since your lens tinting instrument represents both an investment and a very important part of your operation as a whole, your unit should be cared for on a regular basis to ensure maximum efficiency and the best coloring results. The stainless steel makes daily wipe-ups easy. A damp cloth is usually all that is required. If you acquire a residual accumulation of tint pigments, you may use dish washing detergent or other mild detergents to remove it. For more stubborn cases of buildup, BPI® Neutralizer II™ may be helpful. (NEVER use Neutralizer II™ directly on your heating element or on a hot unit.) The following are suggestions for machine care.**

#### TINT TANKS

These should be cleaned each time the tint is changed by washing with detergent and water, rinsing thoroughly under running water and wiping dry. Avoid the inadvertent transfer of heat transfer fluid from the outside of the tint tank to the inside as a very minute amount will result in color variations in the succeeding batch of tint solution. It is advised that you flush tanks under running water for about 10 minutes after washing for that reason. If a buildup of tint residue has accumulated, use Neutralizer II™ or scrubbers such as those used with Teflon® coated cookware for easier removal. A flexible nylon scrubbing cloth is ideal for this purpose. Never use abrasives, such as steel wool and scouring powders, or harsh chemicals such as acetone, ammonia, chlorine-based cleaners, etc. as scratched tanks will collect tint residue making future cleaning more difficult. BPI® Counter-top and Pan Cleaner™ can also be used.



#### BASE UNIT AND HEATING ELEMENT

Periodic checks (about every 6 months or so; more often if unit is heavily used) should be made of the condition of the heat transfer fluid and of your heating element. It is important to be sure no undue contamination of heat transfer fluid is apparent due to tint spills or boil overs. Heat transfer fluid will appear as a transparent medium to dark brown after it has been heated. A good check of it may be made by dipping out a teaspoon of heat transfer fluid and looking to see if you can see the bottom of the spoon. If the fluid is opaque or turbid, it should be changed to prevent any heating problems. Heat transfer fluid should be changed when contaminated. Never add fresh heat transfer fluid to contaminated heat transfer fluid.

Tint solution or chemicals, when mixed with heat transfer fluid cause boiling and hot spots within the transfer fluid. This may result in dislodging a tint tank, splashing a tint, or boiling up from the liner pan. A crackling or popping sound may be the result of water, chemistry or tint solution being mixed with the heat transfer fluid. For minor spills, idling your system at 130°F (54°C) for several hours may evaporate the contaminant sufficiently to eliminate the boiling. Of course, it will not evaporate the pigment from the tint itself, but just the water with which it is mixed. Another sign of heavily contaminated heat transfer fluid is an obnoxious, irritating odor. When in doubt, change the heat transfer fluid.

One way to remove heat transfer fluid is to dip out the fluid as much as possible; another is to use a BPI® Siphon Pump (shown). Use paper towels to absorb the residue, and wash base with water if needed. This is also a good time to check your heating element. The silver protective coating which was on your element before will have disappeared after initial use. This was only a protective coating to help prevent damage due to storing prior to installation in your machine. Run your fingers over the heating element. It should be smooth to the touch. If you feel any roughness due to encrusted tint, remove it by gently cleaning with a nylon or plastic cleaner, taking care not to scratch the element. This inspection is important to you, as such buildups on your element will eventually interfere with proper heating by acting as a barrier, concentrating intense heat within the element, burning it out. It is also a good



time to check for bulges on the element which indicate weakness. BPI® GL-77™ is a specially formulated heat transfer fluid developed by BPI® and has been proven to be the best heating medium available. It heats quickly and evenly, maintains the high temperatures needed for your tints, and is non-toxic. It helps preserve the interior of your base tank and protects your heating element as its evaporation factor is nil. It is unwise to make any substitutions, (such as anti-freeze) which may corrode, evaporate quickly, or release toxic vapors.

#### IN GENERAL

A lab quality thermometer is invaluable in monitoring dye solution temperatures from time to time. When first

turning on your unit for the day, set your thermostat to half scale. When a temperature of 130°F (54°C) is reached (15-30 minutes, depending on unit size), your thermostat indicator light will go out. By observing gradual heat up procedures each day (first setting at half scale; increase slowly until the tint solution itself is at operating temperature) and leaving lids ajar, boil-overs may be avoided.

It is unwise to replace lids immediately after turning off your system at the end of the day as sufficient heat remains to cause bubbling over from one tank to another.

It should be noted that with the BPI® Mini-Tank™ series, the lids should remain off until the temperatures of the tint solution drop to 100°F (37.7°C) or less to prevent boil-overs.

Be sure the thermostat is set to "OFF" before using on/off switch to avoid electrical stress on the switch.

#### CORRECT USE OF YOUR TINTING INSTRUMENT

When first turning on your unit for the day, set your thermostat to about half scale. When thermal stability is reached (15-30 minutes depending on unit size), your thermostat indicator light will go out.

Now you can gradually increase the temperature until the TINT SOLUTION itself is 200-210°F (93.3 - 98.9°C) being mindful that the boiling point of the tint solution is the same as water, 212°F (100°C). Your thermostat setting, which relates to the temperature of the heat transfer fluid in your system, will be different from the actual temperature of the tint; for that reason, a good lab quality thermometer is a wise investment. Avoid the use of mercury thermometers, however, as their breakage constitutes a health hazard.

Remember, the hotter the tint, the faster and more uniform the results.

While your unit is on, do NOT leave your lids on, as you may have a messy boil-over from the rapid increase in temperature. Also, avoid immersing the lens holders and other utensils rapidly in the tint solution as a foam-up reaction may be caused by breaking the surface tension too rapidly.

To minimize evaporation, you may idle your machine at 130°F and leave lids on. Remember, only the water evaporates, not the tint. Water may be added as needed to maintain proper operating level.

#### LENS HOLDERS

Lens holders, stainless or glass thermometers, stirring rods, etc., may be cleaned using the same procedure outlined for cleaning your tanks. Avoid abrasives and strong chemicals. Do not soak BPI® Lens Holder II's™ in BPI® Neutralizer II™ for prolonged periods of time. By keeping lens holders free of tint buildup, contamination of tint colors and resultant lens streaking will be avoided.



#### WARNING

**The use of any other tints or chemicals should be absolutely avoided as they may be acidic or corrosive and attack the metals in your system, and, more importantly, may emit TOXIC VAPORS and create a health hazard. (BPI® tints and chemicals used as directed are safe; see the appropriate Material Safety Data Sheets on specific products). Use of other than BPI® chemicals and tints may void your machine warranty!**