This machine generates UV light which can be harmful to the eyes and skin of an operator or of those nearby. Even though this machine is equipped with a UV filtering shutter material and a UV filtering containment box, stray UV is emitted at very low levels. UV filtering eye glasses must be worn when the light is on by those working nearby, whether using the unit directly or not. Operators are responsible for compliance with this requirement.

1. Turn on the unit by depressing the **Power** toggle to the ON position located at the front left of the unit. The button will light up.

2. Wait 5 minutes before using the light to allow for the bulb to warm up and for the UV intensity to stabilize at its maximum output intensity.

3. Starting the bulb takes a toll on the lifespan of the bulb so the unit should not be switched on and off for each exposure. These UV flood lamps are designed for continuous operation. Please leave the unit on for the entire time you will need it in a given work session. **Also, never turn on the unit and turn it back off again in less than 5-10 minutes.** At short ON times, the components of the lamp may not ionize completely and this will make it harder, and sometimes impossible, to relight the lamp.

4. If the bulb is inadvertently turned off (button, power failure during use) the unit will need to cool down for 10 minutes before it can relight. If you leave the power supply on, the unit will relight automatically when it is cool enough.

5. UVA intensity for a new bulb in this unit is approximately 225 mW/cm², but will become lower with bulb age.

   **NOTE:** This unit primarily emits UVA and some visible light. UVA is generally wavelengths from 315-400 nm.

6. Place sample* on sliding insert tray, push into the UV box fully, close the door.

7. A **30 sec curing time** is dialed into the unit’s counter. Once the bulb is up to temperature (5-10 minutes from cold start) and your sample is fully enclosed with the UV box, press the white **Actuate** button on top. This will open the shutter and start the timer.

8. When the timer runs out, the shutter will close.
9. Open the door, pull out the tray, remove sample, close door when not in use.

10. The unit generates a significant amount of heat. It is not necessary to cure the UV adhesives for more than 30 seconds with this unit. Please do not change the timer and do not leave the samples in for multiple exposures in rapid succession. A couple of cycles in a row of 30 seconds is sufficient to melt the Saran wrap used for vacuum covers.

11. Clean up around the area, but do not wipe the vacuum stone with a wiper. The stone will pull off many wiper fibers and these will be difficult to get off the stone. If necessary, a good razor blade may be used to take care of adhesive bumps left on the stone, and a deionized blow off nozzle may be used to blow debris off the stone. Do not use wipers or spray solvents on the stone.

Report any questions or issues to  

Bentley Wall  330-221-7048 cell

* Sample in most cases refers to a just-assembled empty LCD cell. To generate this sample using the vacuum assembly stone fixture:

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Cell Assembly:

1. Turn on the vacuum service to the assembly stone. To do this, you must open the vacuum utility valve at the wall to the left, and also open the vacuum toggle that supplies this unit with vacuum service located on the vacuum manifold next to the Asymtek. Follow the vacuum line back to the manifold to determine which toggle is needed.

2. Place your gasketed lower LCD plate on the vacuum assembly stone so that the gasketed side is up.

3. Hold your spacer-coated top LCD plate over the gasket-plate and invert so that the spacered side is down.

4. Catch the right angle of light to locate the assembly targets and to position the top plate over the bottom plate in approximately the right place before you put the plates in contact with each other. Once the plates are in contact, they have limited amount of shifting capability before the gasket gets spread out over too large an area to result in an effective gasket, unless capillary-fill style cells are being made.

5. Bring the plates together watching the assembly targets on at least two corners and do not physically press them together. Go back and forth by eye or using an inspection scope to align the assembly targets as tightly as possible.

6. Place a piece of Saran wrap over the entire assembly stone to allow a vacuum to be established underneath. Allow the plates to pull together and for the adhesive to spread out for about 1 minute. Then, return to step 6 above. The vacuum assembly stone is hooked up to allow for it to be fully inserted inside the UV curing box and still be able to close the door. Do not operate the UV shutter with the door open. Make sure UV glasses are worn at all times while the unit is powered up.

7. After the curing cycle is completed, slide out the shelf, and remove the Saran wrap cover and remove the LCD cell. Repeat as necessary.