

# Solarplate Light Box Instructions

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By Dan Welden

The Solarplate Light Box consists of a simple UV lamp housed in a 16" x 12" x 10" wooden cabinet. Designed specifically for exposing Solarplates, this portable unit is capable of exposing any size plate when set up properly.

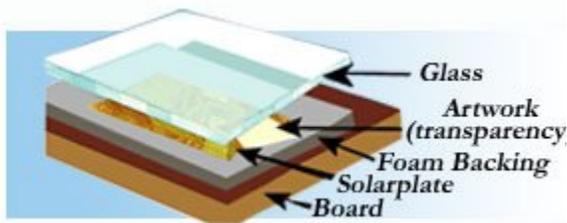
To use the Light Box, you will need a piece of glass, a cushion, a kitchen timer and a flat table.

- The glass should be slightly larger than the base of the box, which is approximately 12" x 16" and must also be about a quarter inch thick or more. Do not use thin picture or window glass because it is more likely to break.
- Cushion or padding is used to help bring the artwork in closer contact with the plate, thereby making a better exposure possible. The padding may be a simple towel (without any embroidery), an etching felt, a yoga mat, foam that is generally supplied to use under a carpet, or something similar.
- A kitchen timer is useful since it is more accurate than the timer on the exposure unit, but you can also keep track of time using a watch or clock.
- A flat table or board is absolutely necessary. Thin plywood is not sufficient. Remember that everything must lie flat and level and the surface must be clean and dry. For large plates, clamping to a backing board is necessary.

## Directions for use

Place the box at a comfortable working height. There are two handles located one on each side of the box for moving or shifting it easily and safely with two hands.

When you are ready to use the Light Box, plug it into a receptacle. Turn the timer on, clockwise. The four UV lamps should go on shortly after some flickering. You may glance at the lights momentarily to make sure that they are functioning properly but avoid prolonged staring as this is hazardous to your eyes.



When preparing for an exposure:

1. Place the cushion on the flat table or board.

2. Place the plate on the cushion (face up).

3. Next, place the transparency/artwork (face down) on the plate.

3. Place the glass on top. Try to center it so that the weight of the box will distribute even pressure, holding all the layers together.

4. Center the Light Box on top of the glass and turn it on.

## Guideline to Exposure Times

Times will vary depending on the density of the artwork. Generally it is appropriate to test. Once you do a few plates, you will have a good idea of exposure times. You should not need more than two minutes of exposure time, maximum. The unit has worked for delicate transparencies with as little as ten seconds of exposure time. Darker artwork is exposed for longer times than lighter artwork.

- The aquatint screen is ALWAYS exposed for one minute, thirty seconds.
- You may expose the artwork first, the screen second or vice versa. Some people feel exposing the artwork first results in a crisper image.
- Washing out can be done immediately or you may wait. (I have exposed plates, wrapped them in light-proof material and developed them a week later).

For a visual guide to this procedure, Solarplate exposure, and printing in general, see the DVD, *Printmaking in the Sun*.

## Replacing Bulbs and Starters

To change a bulb, the unit must be dismantled from its housing. First, unplug it from the power source. Remove the screws from the top of the wooden box, revealing the UV lamp. If there is a wooden wedge used to secure the lamp in the box, this must also be removed by unscrewing from the outside of the box. The lamp can then be lifted out of the wooden box.

With a Philips head screwdriver, remove the four corner screws on the lamp and carefully disassemble it. With the bulbs visible, carefully twist the bulb as with most fluorescent lamps. Remove and replace in the same manner.

You can check to see if everything works by plugging it in and turning on the light momentarily before reassembling the lamp within the wood housing. Note: the four starters will flicker when the bulbs go on. If they do not, the starter(s) may be loose or faulty and may need to be replaced. Further instructions on this are available upon request.