

Instructions for treating Pre-Sensitized P.C.B

1. Prepare your circuit artwork

1. On a transparent film start your lay out with transfer paper, donut pads, black tapes etc.
2. Draw your circuit on white paper then copy on an acetate film.
3. Directly copy the circuit onto transparent film from a book or magazine by duplicator.
4. Print out from computer plotter.

2. Exposing

- a) Cut the board to a size you desire if necessary. Then tear off the black protection film on the board.
- b) Expose the board in the EXPOSURE box for 60-90 seconds.
- c) Put your artwork on top, then press a flat glass sheet as a top layer to make a good contact between the film and surface of a board - just like a sandwich.

Fluorescent Lamp:

1. Keep a 10 or 15 watts fluorescent table lamp on the glass with a distance of 5cm +/- 1 cm.
2. Turn on the light for 8-10 minutes. (If the board width is over 10cm, divide the board into two sections then expose 6-8 minutes each).
3. It's important to have good contact between the film and the board. If you double the distance between the light source and the board, you must also triple the exposure time.
4. For a double sided board, line up two films, taping their opposite edges together, and insert the board between the films.
5. Then tape the films of the board just like a sandwich. Expose the one surface first, then flip over to expose the other surface to the fluorescent light.

3. Developing (See instructions for Developer DP-50 > Altronics H 0798)

- Dissolve the whole powder pack into a litre (1000mls) of water poured into a tray with 2 litres capacity.
- Immerse the board completely. Agitate the board in the tray until the artwork is clear and developed.
- Rinse the board with running water.

4. Trouble Shooting

Small breaks or skips in the circuit pattern can be correct and repaired by using an oil type signature pen.

5. Etching

- Etch the board in an ETCHING TANK for 4-10 minutes (See Instructions for Altronics T 3201).
- Pour enough etching solution (Ferric Chloride – Altronics H 0800) into etching tank (or a suitable plastic tray) and immerse the board with the artwork side up.
- Gently agitate the tray, until the unwanted copper foil has been etched away, leaving only the circuit pattern.
- Rinse the board with plenty of water. 15-60 minutes may be required to etch the board completely
- The etching process is most effective if the solution is kept at a temperature of about 50-60°C