

PB Bench Lines & PCB Labstations

PCB500S, PCB520S PB710, PB720

Installation

1. Carefully consider where the unit will be located. It should be close to any necessary services.

2. Remove unit and ancillary items from the packaging. If fitted, remove plastic protective film from white side panels of the base unit. Ensure the following parts are included:

Description	500	520	710	720
Lid/Basket	3	3	4	4
32mm Bend	1	1	1	1
Water Inlet Tap	2	2	1	1
Washing machine hose	2	2	1	1
RCD Adaptor	1	1	1	1

Ensure all water services are connected in accordance with local water bylaws. Minimum pressure of water inlet for spray wash tanks should be 2 bar.

3. Connect spray wash water inlet to water supply via washing machine hose and threaded washing machine type tap, designed to fit standard 15mm copper cold water mains pipe by means of a compression joint. Waste water outlet to mains waste is via the 32mm push fit bend.

4. **Before connecting to mains power ENSURE ALL HEATED TANKS ARE FILLED WITH LIQUID TO 5 – 10mm below the shoulder on which the lid rests. NEVER TURN ON ANY TANK WHEN IT IS EMPTY.**

5. **Always use the Power Cut-Out (RCD) device supplied, (Mega part No 161053).** Having read electrical safety notice on reverse (or attached) insert plug into 13amp socket. Turn on the mains switch on the front of the unit and ensure it illuminates to confirm power is on.

6. Each heated processing tank's operating temperature has been factory set as follows:

PCB 500/520

Developing Tank 25°C	Etching Tank 45°C	Immerse Tin Tank 50°C *
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PCB 710 / 720

Developing Tank 25°C	Etching Tank 45°C	Resist Strip Tank 45°C	Immerse Tin Tank 50°C *
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* The immerse tin tank is set for 50°C as the PC168 tin powder has to be dissolved in water of that temperature. Once this is done the heater to this tank should be turned off and the tin used at room temperature

Selecting PCB Chemistry

Mega PB process tanks are designed specifically for use with Mega's range of PCB chemistry. The carefully selected range of compatible chemistry has many safety features. The developer does not, unlike others, contain Sodium Hydroxide (Caustic Soda) and a recent report by an occupational hygienist concluded that, under the test conditions, **NO LOCAL EXHAUST VENTILATION IS REQUIRED** using Mega's PCB chemistry and tanks. Copies of the report are available upon request.

The following chemistry, available from Mega is recommended:

Developer	600-010	1 litre Conc. (10 litres)
Etchant	600-013	Etchant 2.5 Kilos (5 litres)
Etchant	600-015	Liquid Etchant (5 Litres)
Etchant	600-016	Liquid Etchant (25 Litres)
Fine Etch	600-014	Fine Etch Crystals (5 litres)
Stripper	600-019	Resist Strip 1 litre =(5 litres)
Tin	600-021	Immerse Tin 450g=(5 litres)

NB PCB520 & PCB720 have 10 litre tanks.

Instructions on Use

The combined lid and basket holder enables the operator to move the PCB laminate into a separate or integral spray wash tank for cleaning without coming into contact with the chemistry.

Processing Times:

The time the board is left immersed in a process tank should be determined from the relevant chemical processing instructions. As a guide, developing normally takes 30 – 60 seconds, etching 5 – 6 minutes, resist stripping 2 – 3 minutes and tinning 5+ minutes.

Spray Wash:

Boards should be washed in a spray wash tank for at least 60 seconds. The spray wash tanks have a solenoid valve operated by an illuminated switch on the control panel. When the switch is on water is forced out of the two spray wash bars at the top of the tank.

Etching:

The etch tank has an integral air pump operated from the front control panel. **Do not operate the pump unless a lid / basket is on the tank.** For optimum results panels should be inverted half-way through the etching cycle.

Fault Finding:

If you have a problem with your unit – Check the following:- If the problem persists, please contact Mega's repair department quoting the model number and serial number of your unit..

Problem	Solution
No power to the tank, mains switch does not light up.	Check fuse in the tank and mains plug.
Heater light to Developing tank does not light up.	Check that room/water temperature is not already close to 25°C
Heater light is on, but liquid does not heat up.	Contact Mega.
Liquid becomes too hot.	Check liquid level. It should be 5 – 10mm below top of tank

Servicing and Spares

Before cleaning or servicing any tank ensure the power is switched off and the mains cable is removed.

Each time the chemistry is changed, clean and rinse the tank before replenishing.

Ferric chloride (Etchant) stains can be removed with Mega's Ferric Cleaner (Part No. 600-039).

The following common spare parts can be ordered:

160001	Heater
160032	Heater
160056	Thermostat
167004	Amber Indicator
167111	Green Latching Switch
167112	Yellow Latching Switch
291000	Bubble Bar Assembly
900-041	Lid / Basket 12" x 18"

Associated Products

A range of products available for use with this unit are detailed in our free product catalogue. The fully priced catalogue features all that is required for Printed Circuit Board and Label products.

Please telephone us for your copy

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