

EWS Standard Procedure ----- 014

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MULTIPRESS II (K061) - MULTILAYER PCB LAMINATION PROC

1. INITIAL REQUIREMENTS

- a. REMOVE PREPREG MATERIAL (EWS Part# 97-03-02) FROM REFRIGERATOR AND ALLOW TO STABILIZE AT ROOM TEMPERATURE FOR 16 HOURS BEFORE PRESSING.
- b. Ensure Compressor Log Sheet is up to date and all moisture traps are dry.

The compressor shall be drained at regular intervals of no more than 7 days and the Compressor Log Sheet updated to provide a maintenance record. The Log Sheet is situated next to the compressor enclosure.
- c. Switch on Compressor ----- SEE GPO MARKED COMPRESSOR
- d. Switch on Multipress II ----- SEE GPO MARKED PRESS
- e. Ensure Compressor regulator is set to not less than 8 Bars - See Indicator(PI-00)
- f. Ensure Multipress II regulator is set to 7.5 Bars - See Indicator (PI-02)

2. PRE HEAT THE MULTIPRESS

- a. Open the MultiPress, remove the Press Package assembly and carefully place on the Press Package Assembly Rack.
- b. Press > [Enter]
> [↑] or [↓] --- Select "Program 2" for A4 size PCB material
> [Enter] ----- Multipress now in Preheat Phase, continue as prompted by process menu

3. LAMINATION PROCESS

3.01 PREPARE INNER PCB ASSY

- a. Very carefully clean both sides of the Inner PCB Assembly** using Scotchbright or similar (EWS Part# 21-04-01).
- b. *HANDLING THE PCB BY IT'S EDGES ONLY FROM NOW ON*, rinse with water.
- c. Thoroughly dry the PCB using clean compressed air.
- e. Using an appropriate optical aid, check for cleanliness and possible milling flaws.

IMPORTANT! THIS IS THE FINAL CHANCE TO VISUALLY INSPECT THE INNER PCB ASSY PRIOR TO LAMINATION. FAILURE TO DETECT ANY PROBLEM AT THIS STAGE WILL ALMOST CERTAINLY RESULT IN A DEFECTIVE BOARD!**

- d. Finally, degrease using an Isowipe.
- e. Put the Inner PCB Assembly** in a clean and safe location until required.

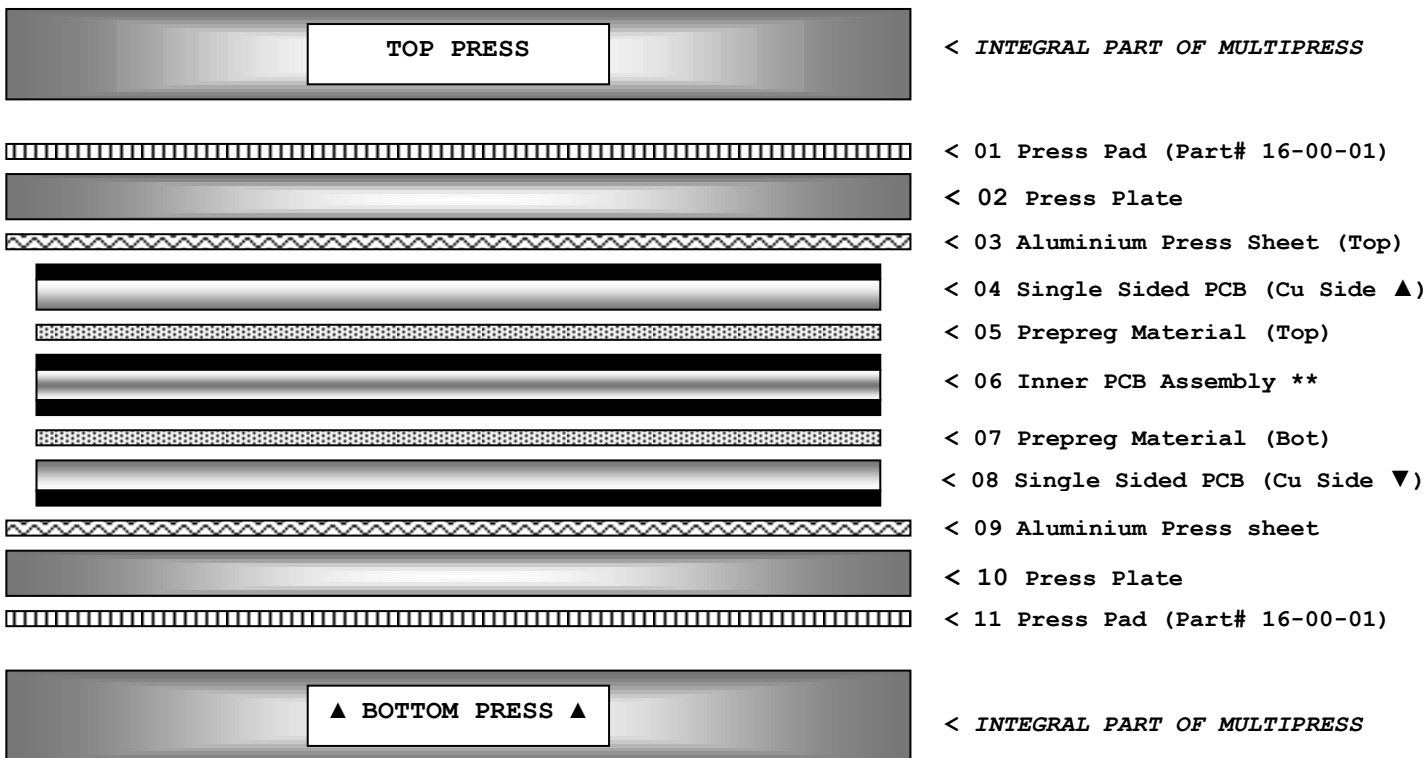
3.02 ASSEMBLE PRESS PACKAGE

- a. Using an Isowipe, ensure the TOP and BOTTOM Press Plates are clean and free from foreign matter.
- b. Using an Isowipe, ensure the TOP and BOTTOM Aluminium Press Sheets are clean and free from foreign matter.

Failure to comply may result in damage to the Multipress and/or damage to the PCB

- c. Assemble component parts of the Press Package as per the diagram below.

For ease of handling, it is suggested that parts are assembled upon the rack assembly situated next to the Multipress



** THE TERM "INNER PCB ASSEMBLY" REFERS TO A PCB WHICH MAY ALREADY BE MULTILAYER.

3.03 LAMINATION PROCESS

- a. **THE MULTIPRESS OPERATES AT HIGH TEMPERATURE. USE THE HEAT RESISTANT GLOVES PROVIDED WHEN INSERTING OR REMOVING PRESS PACKAGES.**
- b. Carefully insert the assembled Press Package into the Multipress as required.
- c. Close the sliding door and press [ENTER] to initiate the lamination process.

IMPORTANT! *Any attempt to re-open the sliding door at this time will cause the Multipress to abort the process, resulting in a defective PCB*

- d. Remove Press Package from Multipress when prompted (Process lasts approx 6 Hrs).

For ease of handling, it is suggested that the Press Package is placed upon the Press Package Assembly Rack situated next to the Multipress

- e. Switch OFF the Multipress.

3.04 DISASSEMBLE PRESS PACKAGE

- a. Disassemble the Press Package and place the laminated PCB in a safe location.
- b. Being careful not to damage their surface finish, thoroughly clean the TOP and BOTTOM Press Plates.
- c. Being careful not to damage their surface finish, thoroughly clean the TOP and BOTTOM Aluminium Press Sheets.

Hardened adhesive may be removed by scraping the affected area using an old piece of FR4 substrate (WITH COPPER REMOVED). Then, if required, gently polish with a Scotchbright pad. Finally, degrease the entire Aluminium Sheet using an Isowipe.

- d. Re-assemble the Press Plates and Aluminium Press Sheets and place in the Multipress ready for the next user.
- e. Although the TOP and BOTTOM Press Pads are only suitable for a single pressing cycle, they may be retained for other uses and should be placed in storage location 80-03-01.

3.05 FINAL CONSIDERATIONS

- a. DOES THE NEXT PHASE INVOLVE DRILLING OR CUTTING OUT THE LAMINATED PCB?

Yes > *Let the laminated PCB stand in a safe location for a minimum of 16 Hours before continuing with the manufacturing process.*

No > *Continue with the manufacturing process.*