Installation of CFEBs

This document will show you how to install CFEBs on a CSC cooling plate.

Tools required:

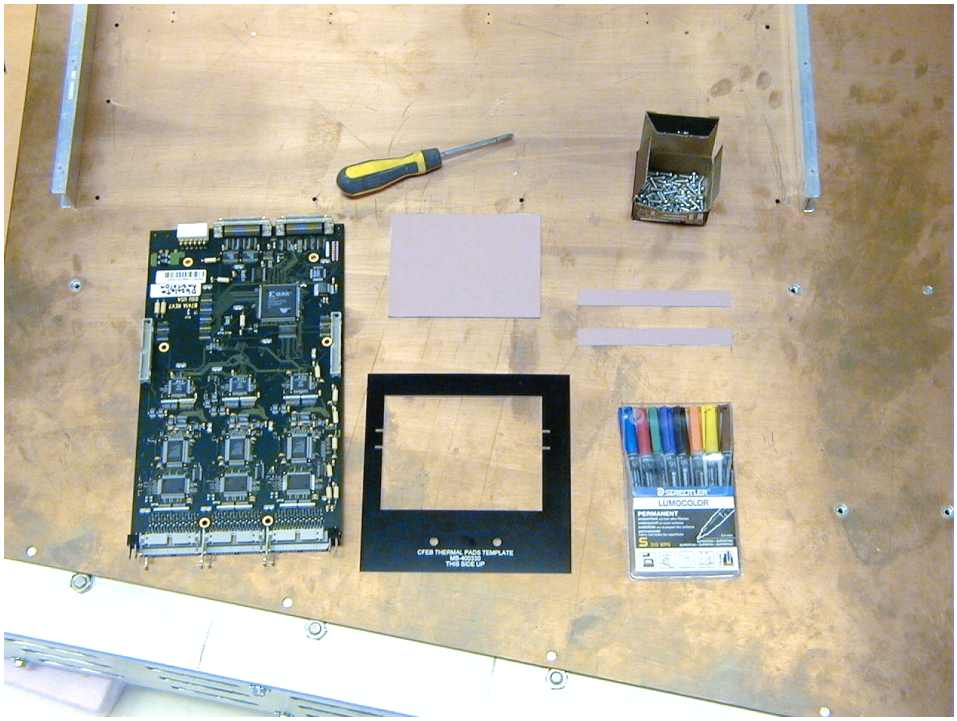
- Phillips-head screwdriver, #1 or #2 tip
- CFEB thermal pad template
  (# MB 400330)
- Fine-tipped permanent marker

Preparation required:

- The cooling plate must be mounted on the chamber.
- Surface of cooling plate in CFEB area must be clean.

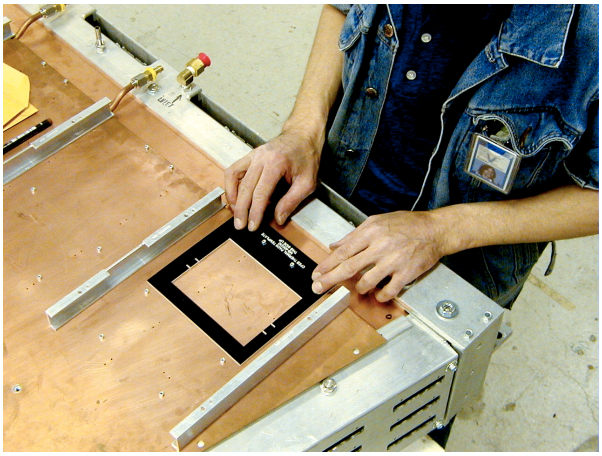
Materials required:

- CFEBs
  - 4 or 5 depending on chamber version
  - (# MD 400020)
- CFEB mounting screws
  - 6 per CFEB
  - (# MA 400155)
- CFEB thermal pad, large
  - 1 per CFEB
  - (# MB 400169)
- CFEB thermal pad, small
  - 2 per CFEB
  - (# MB 400170)

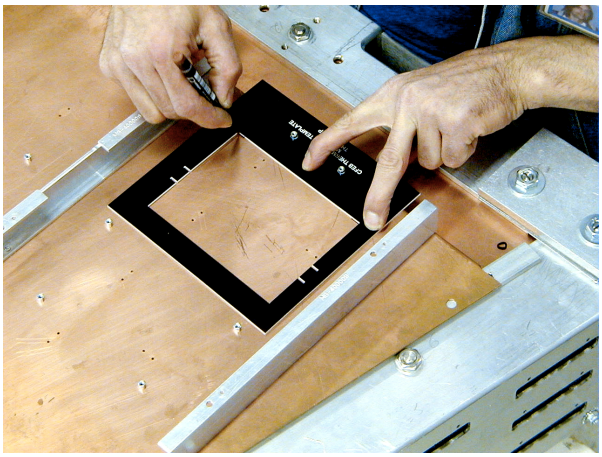


CFEB Template

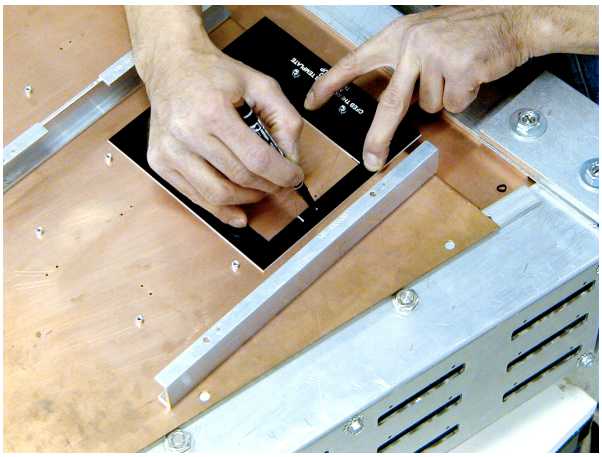
Position CFEB template as shown. Template indexes on two front threaded standoffs. Front edge of template overhangs cooling plate.



Using fine-tipped permanent marker, mark the four inside corners of template window.

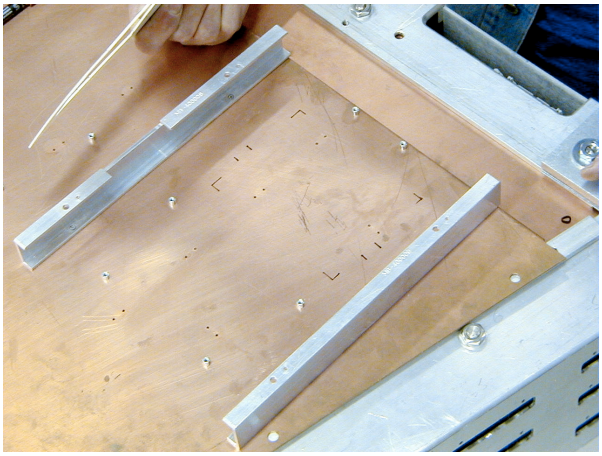


Mark the four “whiskers” using the slots on the sides of the template.

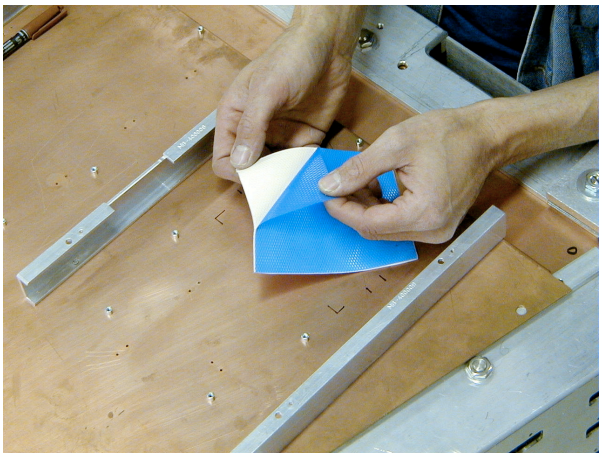


Large CFEB Thermal Pad

This is how CFEB area of cooling plate should look once marking is complete.



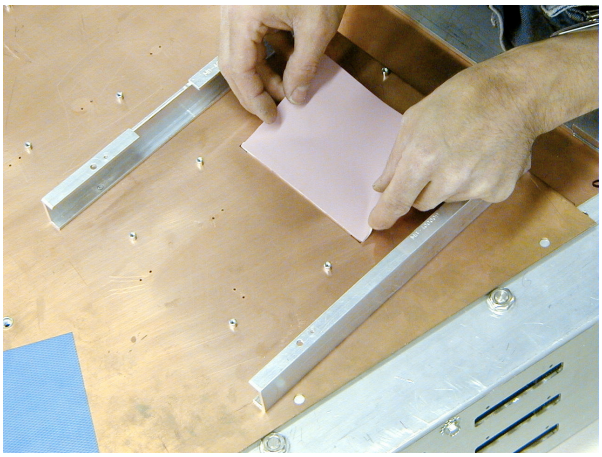
Remove backing from large CFEB thermal pad (part # MB 400169) to expose adhesive coating.



Stick thermal pad to cooling plate, using corner marks as a guide.

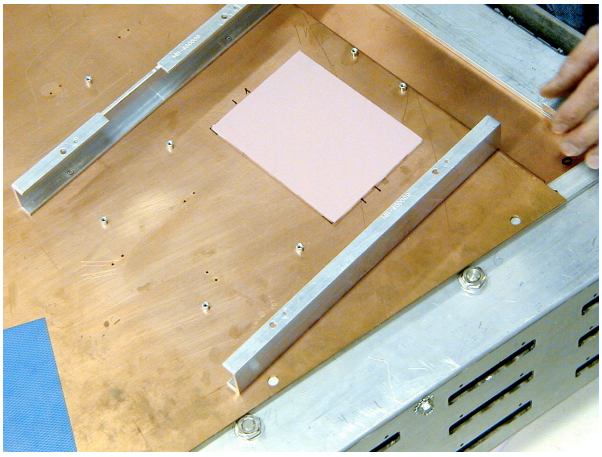
If pad is undersize by a significant amount (> 2mm deficit in width or height), reject pad.

Smooth pad against cooling plate to ensure full contact over entire surface of pad.

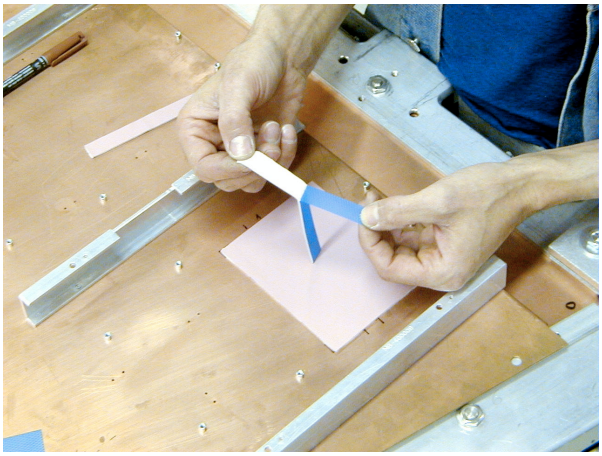


Small CFEB Thermal Pads

This is how the large CFEB pad should look once installed. Note the four "whisker" marks projecting past the edges of the pad.

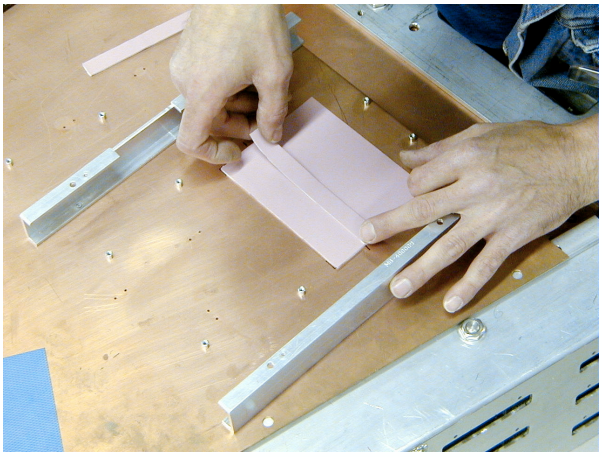


Peel backing from a small CFEB thermal pad (part # MB 400170) to expose adhesive coating.



Stick small thermal pad into place on top of large thermal pad as shown, using whisker marks as a guide.

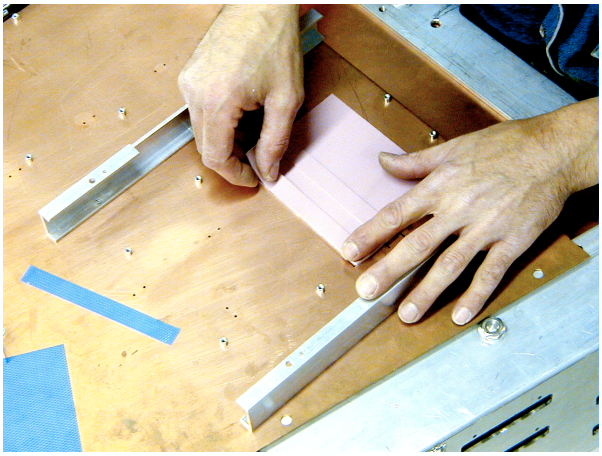
Smooth thermal pad down to ensure full contact over entire surface of pad.



Final Installation

Peel protective backing from another small CFEB thermal pad (part # MB 400170).

Position on top of large CFEB thermal pad as shown, aligning back edges of upper and lower thermal pads.



Place CFEB over thermal pads and align CFEB mounting holes with threaded standoffs on cooling plate, taking care not to dislodge thermal pads while positioning CFEB.

Attach CFEB to cooling plate using six CFEB mounting screws (part # MA 400155).

Hand-tighten screws until snug. This completes the installation procedure.