

Producability Issues:

Assembly of Module Connectors to PWB's

360 LRM Product

Connectors shall be mounted to PWB's after PWB's have been mounted to the heatsink (if there is a heatsink)

A solder fixture can be purchased which insures proper assembly of connector inserts.



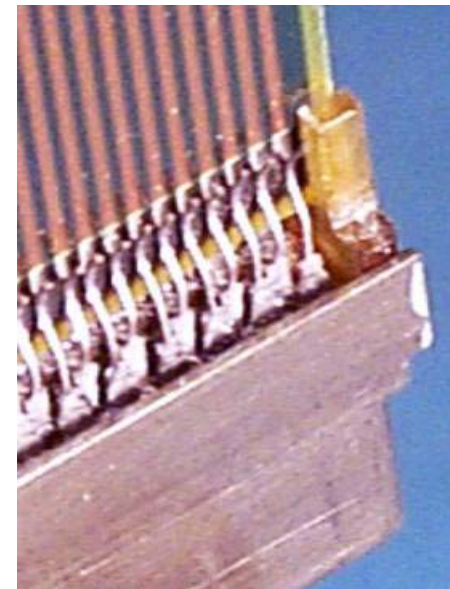
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Amphenol Aerospace

472 LRM Product

Connectors shall be mounted to PWB's before PWB's have been mounted to the heatsink.

Each insert has slotted towers to guide the board into the correct location prior to soldering.



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L-39887-282

Termination Instructions for the Amphenol Aerospace LRM 360 Module, 10-507142

The LRM 360 family of module connectors have been designed to be surface mounted to a Printed Circuit Board package by straddling the package; half the contacts on one surface, the other half on the other surface. The “package” may consist of one printed circuit board, or two printed circuit boards mounted to a heatsink. This document reviews the recommended procedure to solder the Amphenol 360 LRM connector to two printed circuit boards mounted to a heatsink.

Amphenol's Solder Fixture: 10-507952-8()

See drawing for correct
Heatsink Suffix

Insert Positioning Pins
8 places

Spring Loaded Insert
Positioning Plate

Comb Pivot Arm
Locking Screw

Comb Pivot Arm
4 places

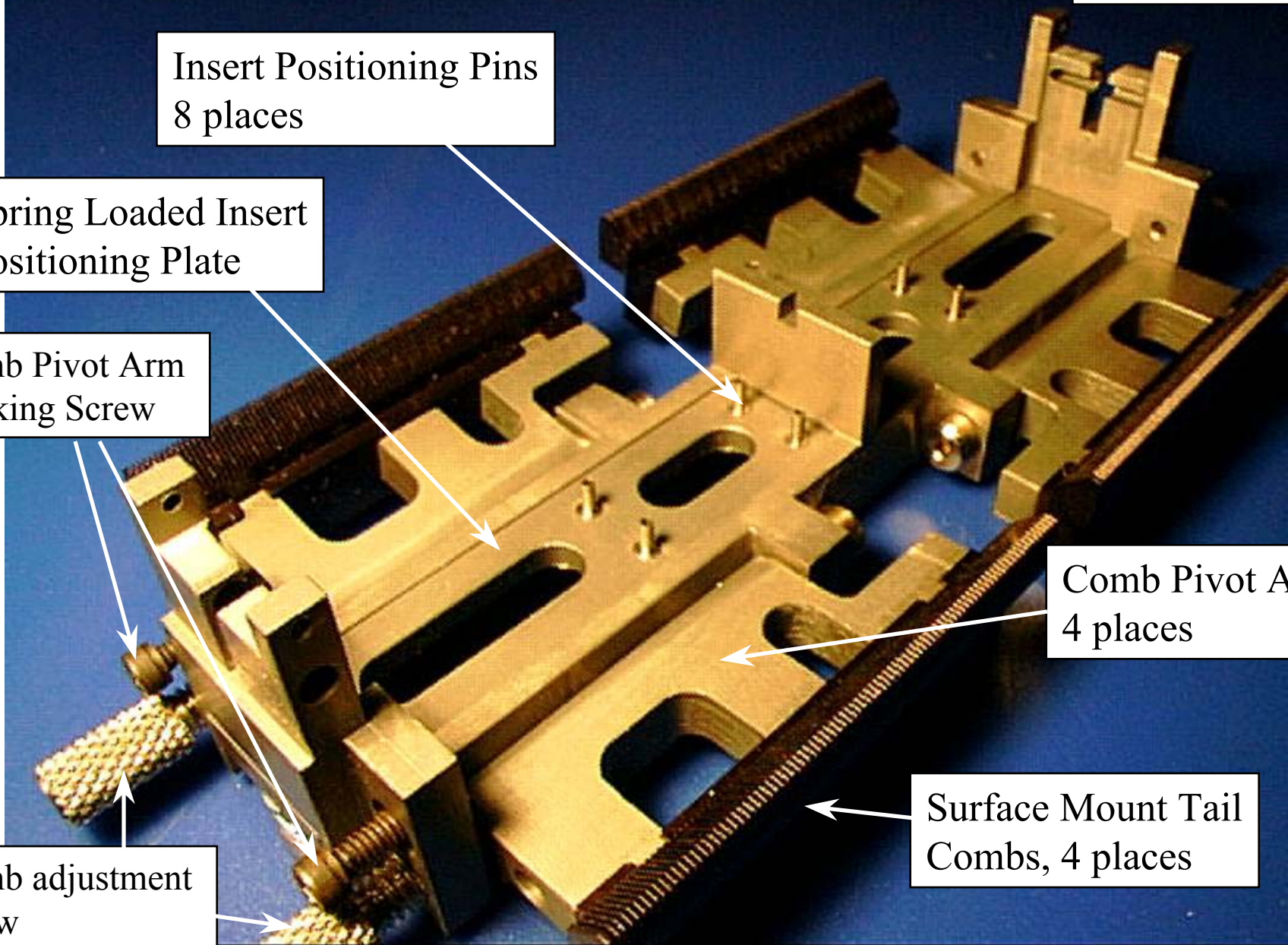
Surface Mount Tail
Combs, 4 places

Comb adjustment
screw

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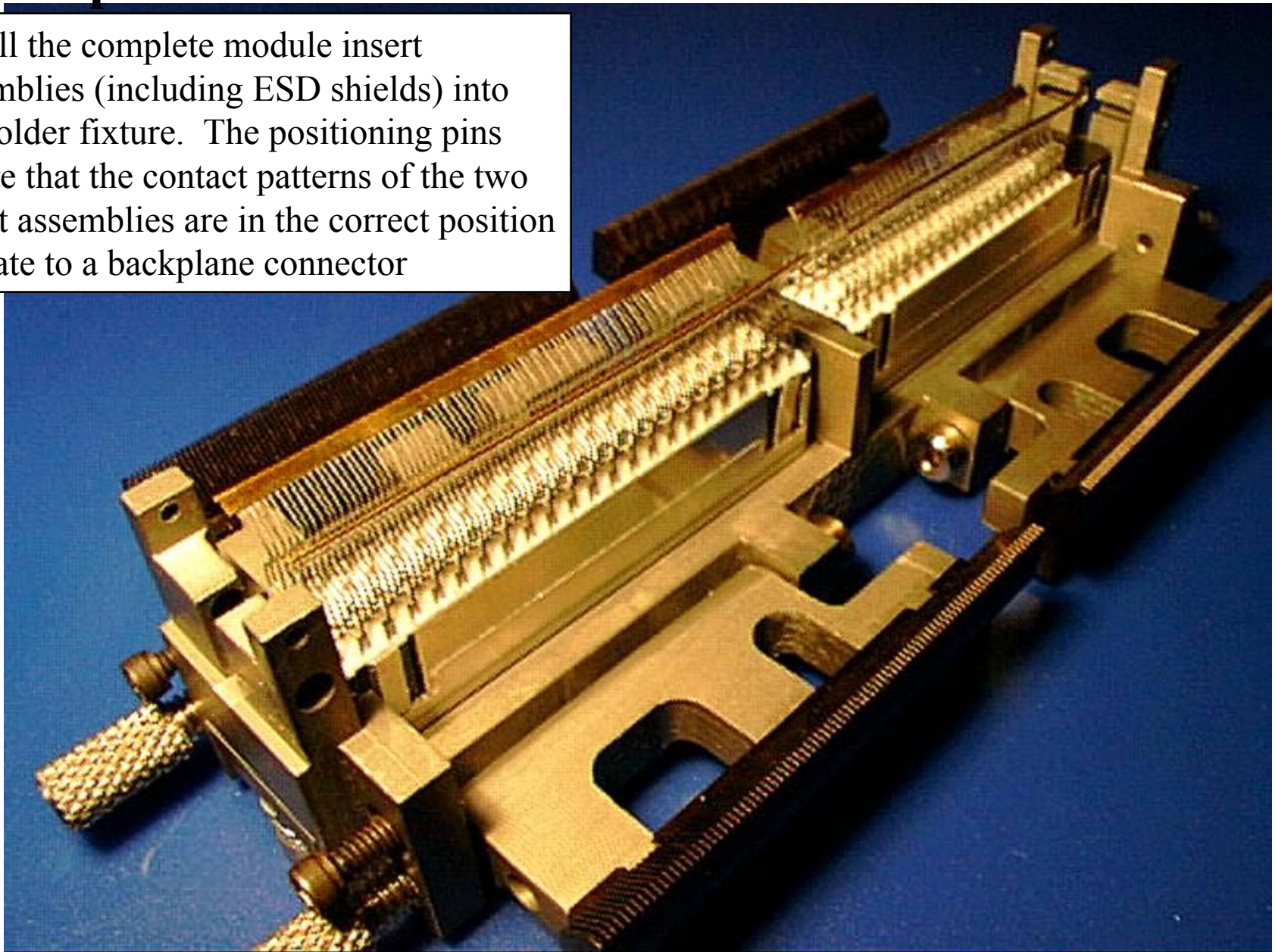
Amphenol Aerospace

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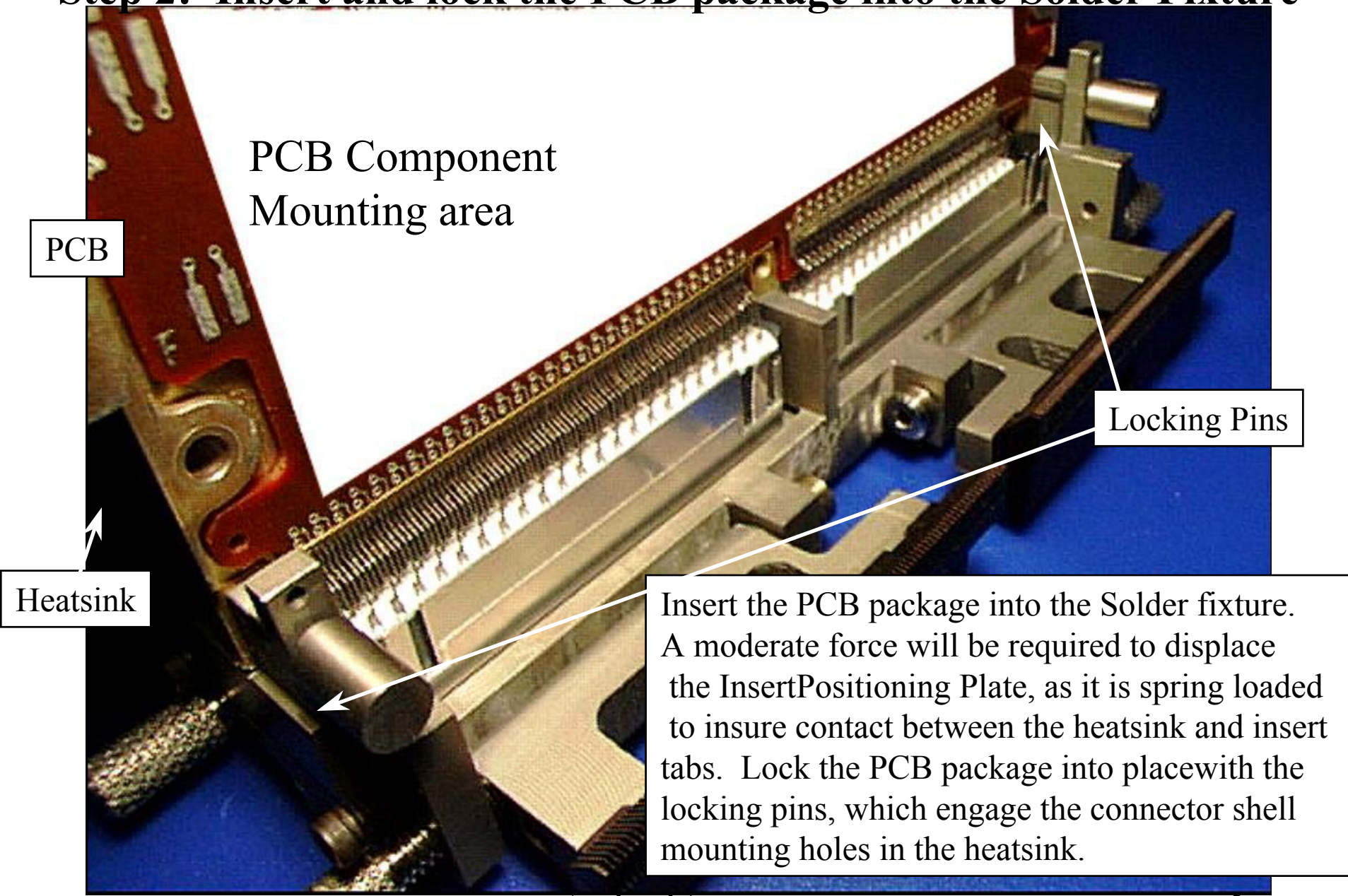


Step 1: Install Insert Assemblies into Solder Fixture

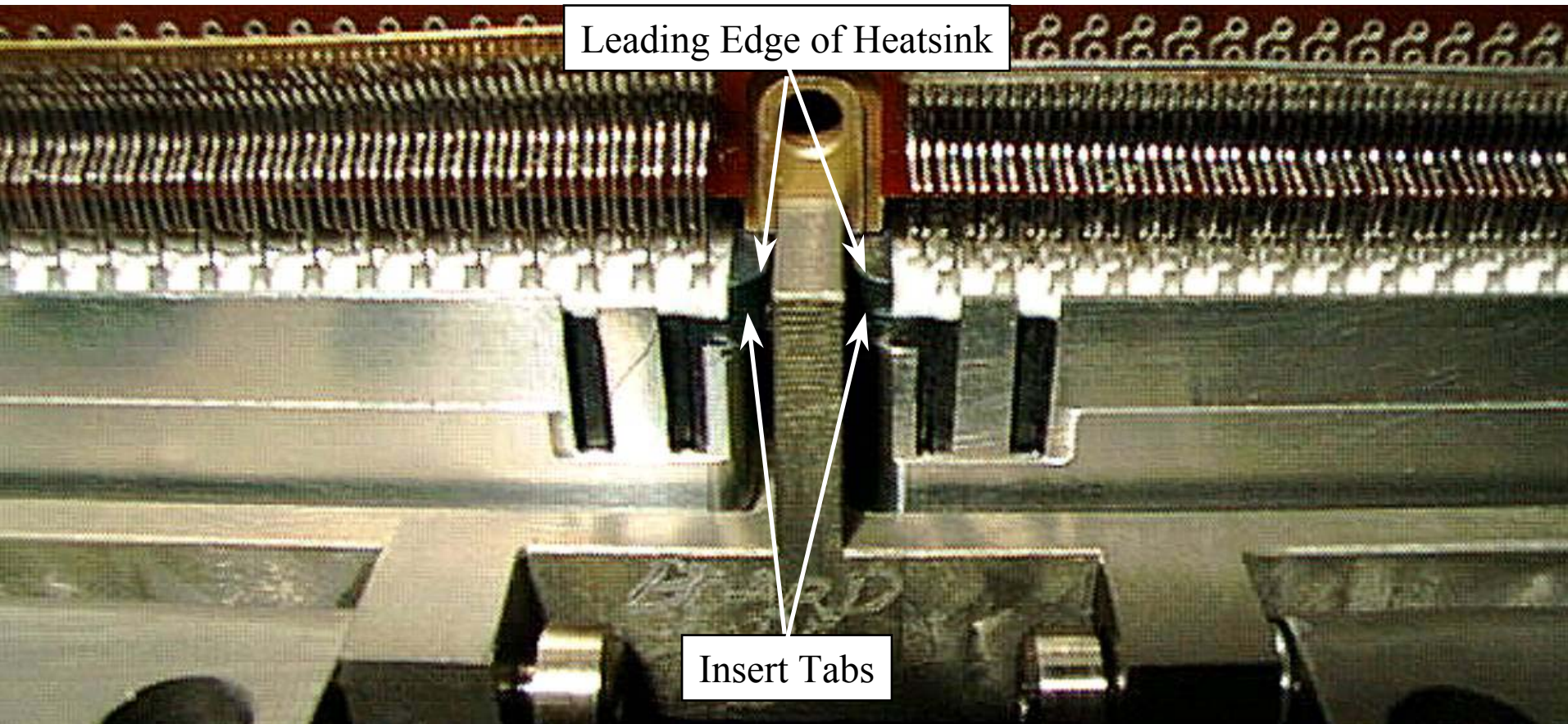
Install the complete module insert assemblies (including ESD shields) into the solder fixture. The positioning pins insure that the contact patterns of the two insert assemblies are in the correct position to mate to a backplane connector



Step 2: Insert and lock the PCB package into the Solder Fixture



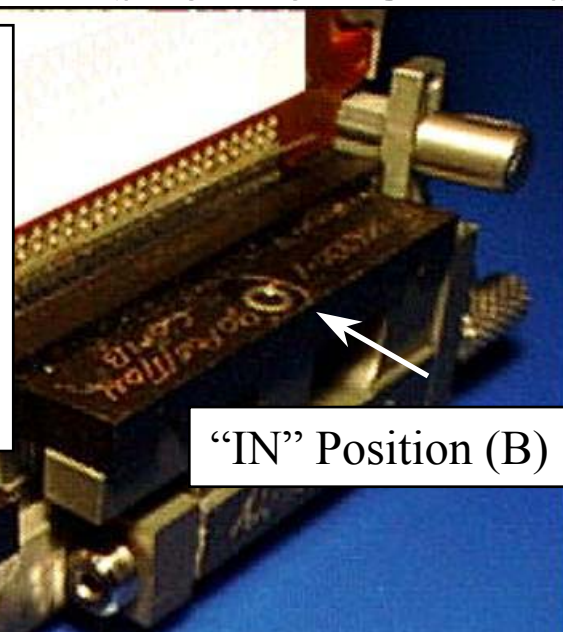
Step 3: Check for contact between the heatsink and Insert Tabs



The Solder fixture has been designed to force the inserts to engage the leading edge of the heatsink, but this contact should be visually confirmed prior to soldering (at both ends of each digital insert). If the surface mount tails are soldered when a gap is present, the solder joints will be under stress when the connector is mated, which could compromise the strength of the solder joints.

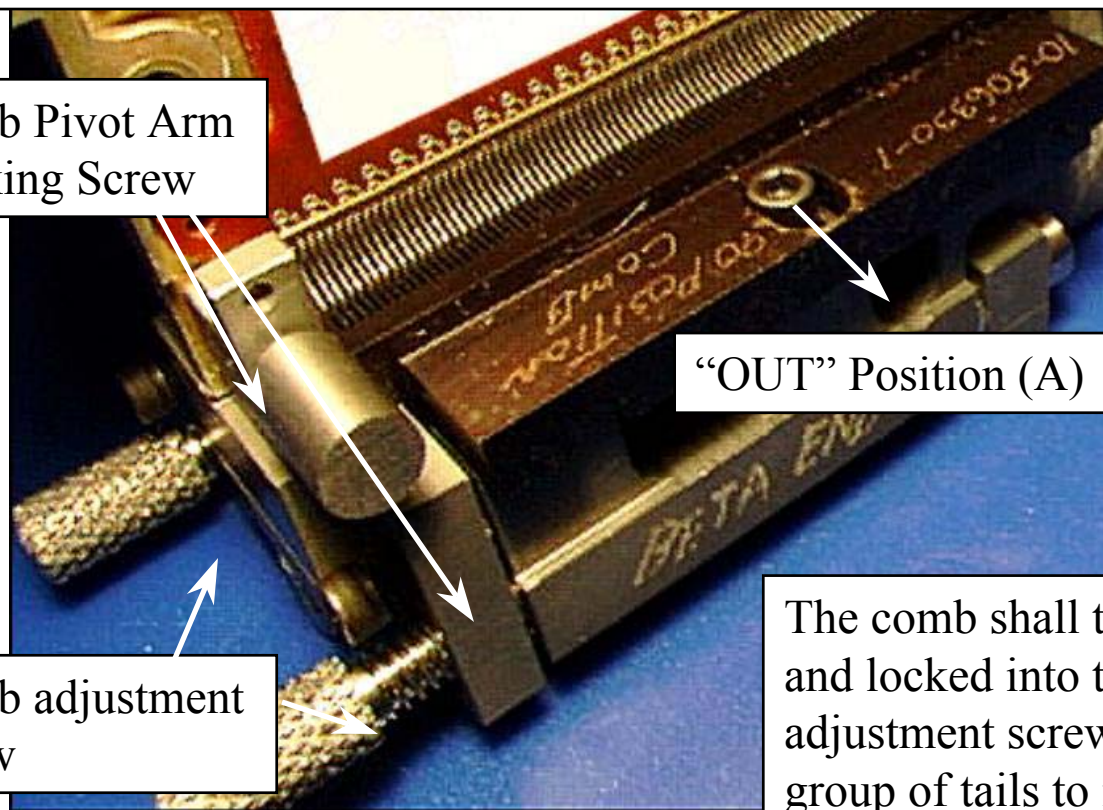
Step 4: Alignment of the Surface Mount Tails to the PCB Pads

If the Surface Mount Tails are not aligned with the PCB pads, the combs may be used to independently align each group of tails. With the combs in the “OUT” position (A), the comb pivot arm shall be rotated up into the position shown, and locked in via the locking screw. The comb adjustment screw can then be adjusted such that the teeth of the comb line up with the spaces between the surface mount tails.



“IN” Position (B)

Comb Pivot Arm
Locking Screw



“OUT” Position (A)

Comb adjustment
screw

The comb shall then be pushed toward the tails, and locked into the “IN” position (B). The comb adjustment screws can then be used to translate the group of tails to its desired location.

Step 5: Soldering the Surface Mount Tails

The surface mount tails may be soldered with or without the tie bars in place, and with or without the combs in place.

Typical soldering methods used include hot bar, focused IR, Convection oven, and focused vapor phase.

