



Epoxy Mount Socket Assembly

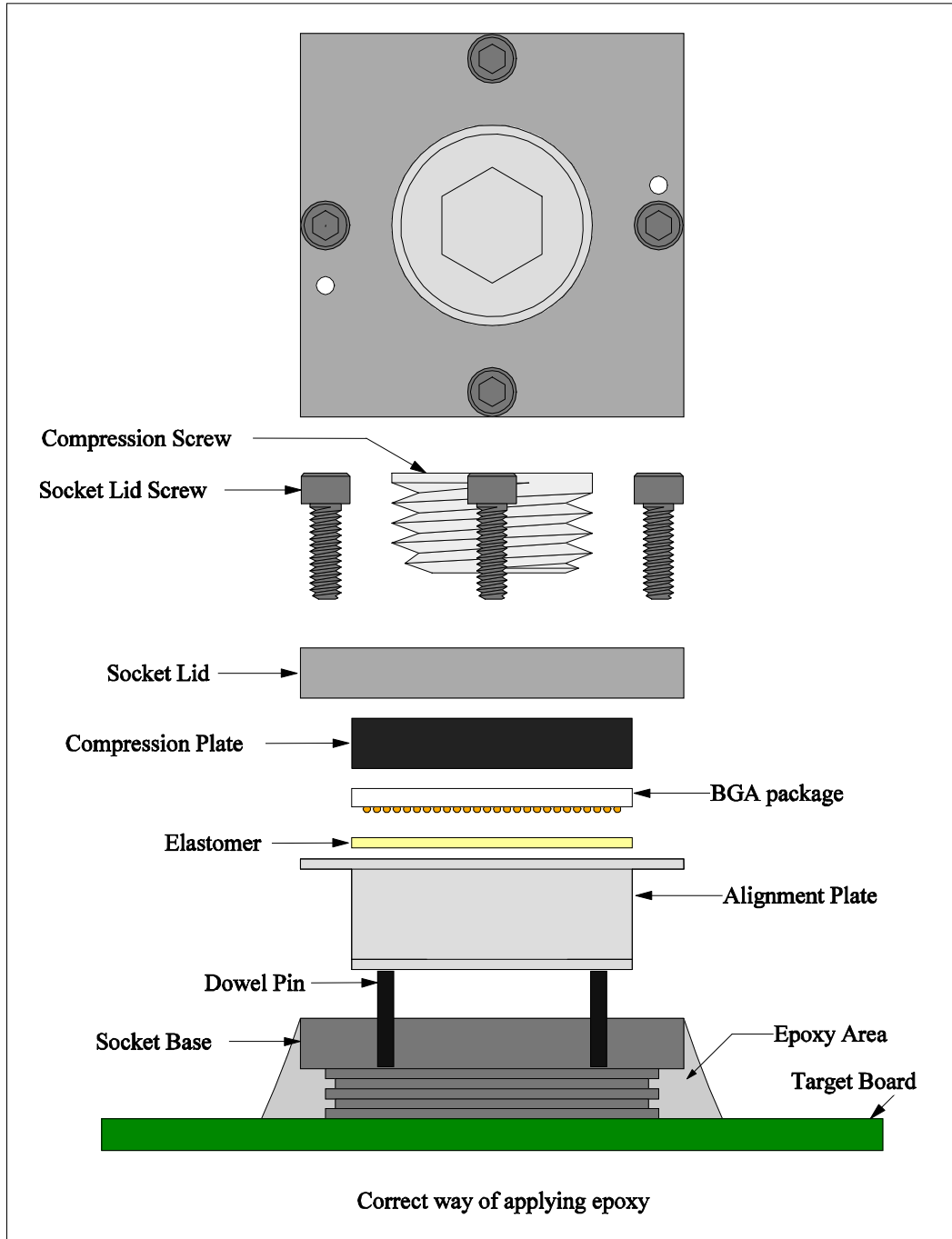


Figure 1: Exploded view epoxy socket assembly



1. Insert alignment plate onto dowel pins in the socket base.
2. Flip the socket base together with the alignment plate over.
3. Apply pin-head amount of no-run super glue on all four corners of the socket base. We at Ironwood use Quick gel® by Duro. **Tip:** put some of the super glue on the clean piece of paper. Then use a pin or a needle to apply the super glue to the four corners of the socket base.
4. Flip the socket base with the alignment piece over and use corner holes on the alignment piece to align the socket base with the target board pads using microscope.

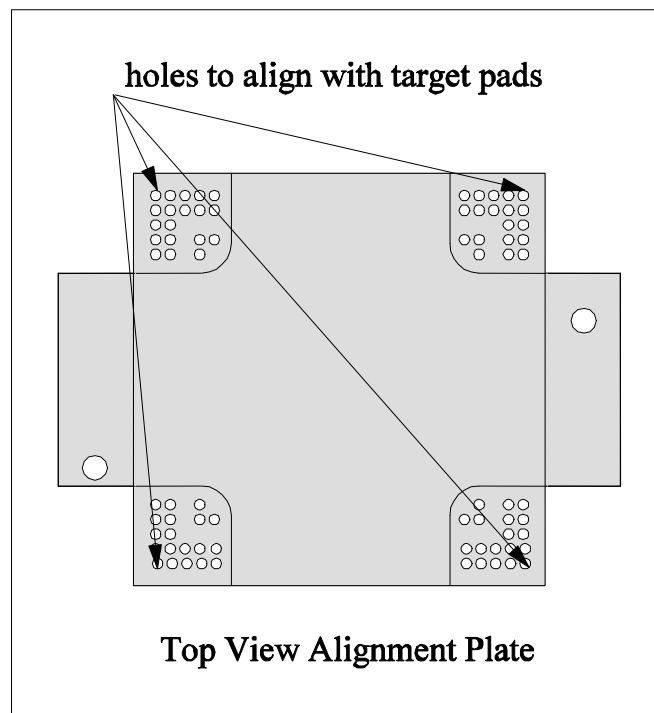


Figure 2: Top view of alignment plate

5. When the holes of the alignment plate are aligned with the target pads, place the socket base onto the target board. Let the super glue dry for about 5 minutes.

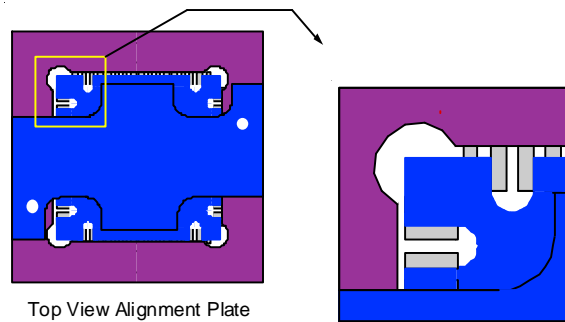
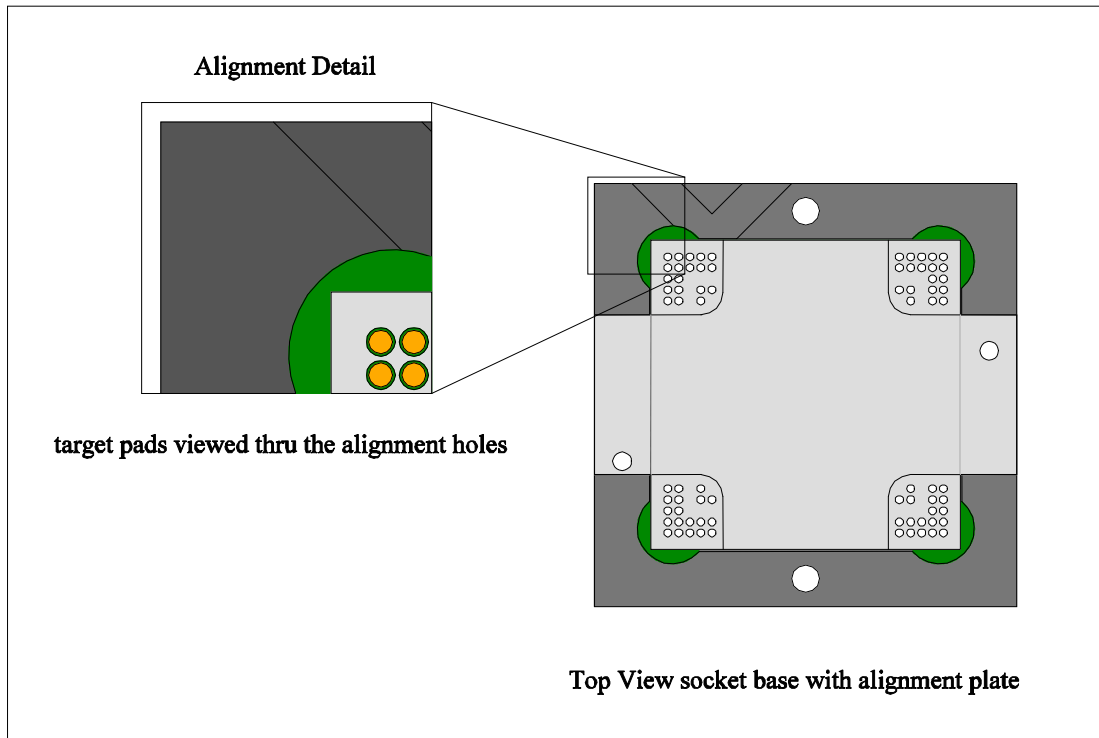


Figure 3: Top view of socket base with alignment plate for BGA and QFN sockets

6. Then run a bead of epoxy around the socket base in one or multiple passes. **Important:** Make sure epoxy completely fills the groves. At Ironwood we use **LOCTITE ABLESTIK 84-3 (ABLEBOND 84-3)**. Other equivalent epoxies can be substituted. Cure as directed by the epoxy manufacturer. We cure @125° C for two hours in an oven.

Note:

Ablestick 84-3 is tested on ironwood elastomer epoxy sockets up to 100° C. This epoxy is highly recommended if the sockets are planned for any temperature use higher than room.

In any case if oven curing cannot be done on the target PCB's 3M DP-420 Black (20 min work life) can be Substituted. DP-420 is recommended only if the socket is going to be used in room temperature.

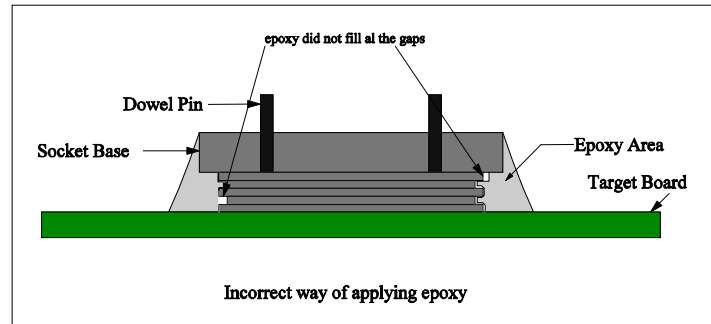


Figure 4: Incorrect way of applying epoxy

1. After epoxy cures, remove the alignment plate.
2. Place elastomer inside the socket base cavity (direction and orientation are critical).
3. Place IC package and compression plate into the socket base cavity.
4. Assemble socket lid onto socket base with socket lid screws.
5. Assemble compression screw into socket lid and apply recommended torque, preferably using the torque driver tool.