

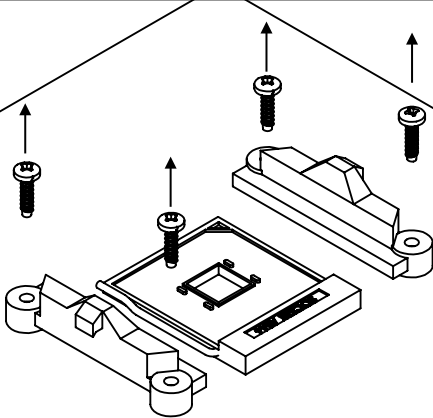
# DER BAUER

With recent advancements in processor architecture manufacturers no longer place the die directly in the middle of the substrate. This results in an offset of the IHS in relation to the actual heat source; increasing thermal resistance.

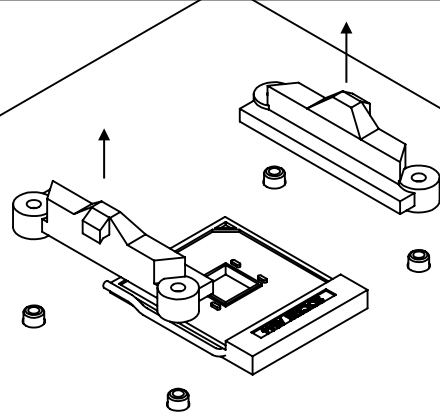
**WARNING: REMOVAL OF THE STOCK RETENTION MODULE IS PERFORMED AT YOUR OWN RISK AND MIGHT RESULT IN THE INVALIDATION OF THE MANUFACTURERS WARRANTY. CHECK WITH YOUR BOARD MANUFACTURER.**

**WARNING: IMPROPER USE MAY RESULT IN DAMAGE TO YOUR EQUIPMENT.**

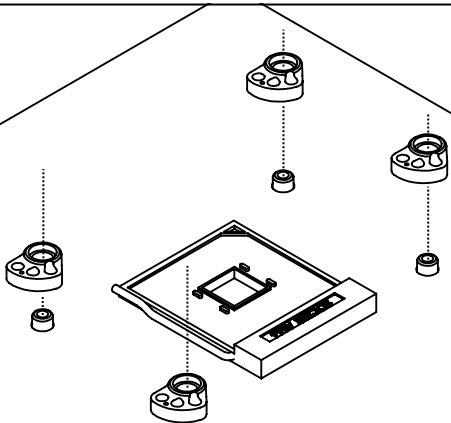
Step 1: Loosen stock bracket screws.



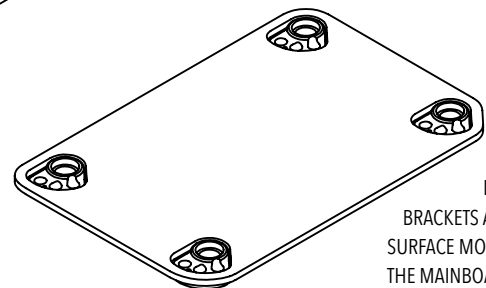
Step 2: Remove stock brackets.



Step 3: Place Brackets on mounting points

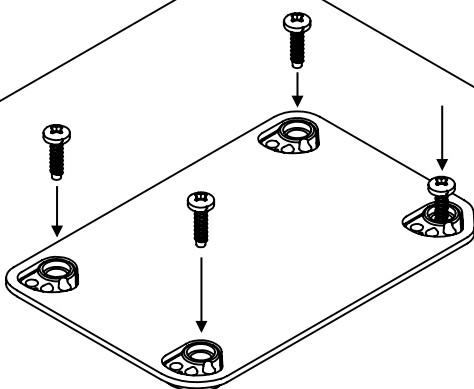


Step 4: Align brackets using your processors template

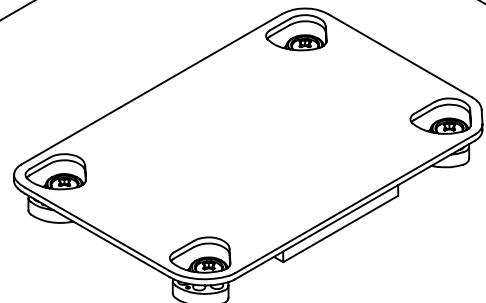


**WARNING:**  
DO NOT CONTINUE IF  
BRACKETS ARE TOUCHING ANY  
SURFACE MOUNTED DEVICE ON  
THE MAINBOARD!

Step 5: Tighten using stock bracket screws.

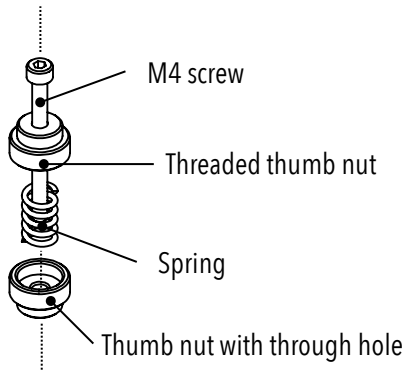


Step 6: Remove template



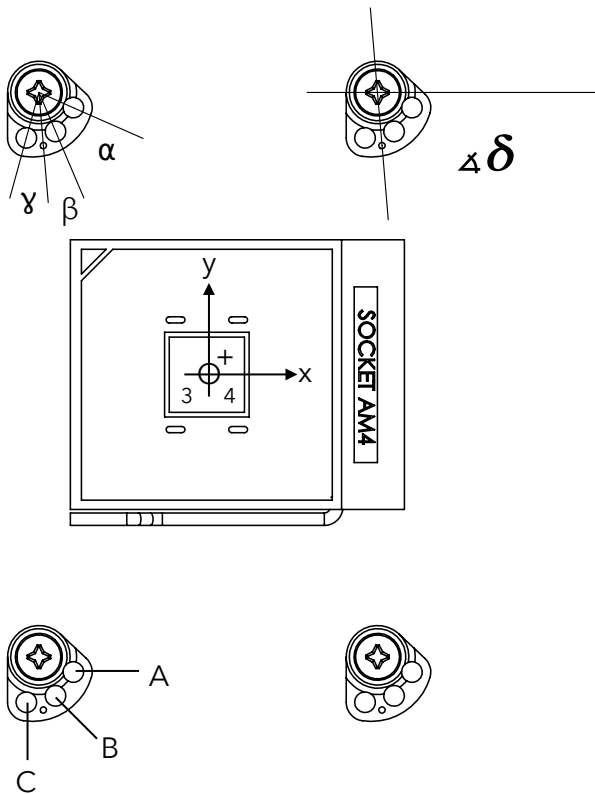
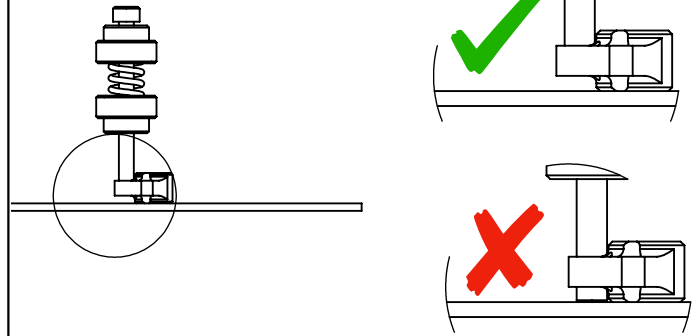
Step 7: Assemble spring sub assembly:

4 x



Step 8: When installing cooling unit pay close attention

Preload springs using top thumb nut while not turning the M4 screw:



For custom positioning the template with the scales can be used.

Radii for holes A, B, C:

$r_a=6,00$  mm

$r_b=6,75$  mm

$r_c=7,50$  mm

Offset angles:

$\alpha=43,25^\circ$  total offset for A =  $-(\alpha+\beta)=-61,47^\circ$

$\beta=18,22^\circ$  total offset for B =  $-\beta=-18,22^\circ$

$\gamma=20,27^\circ$  total offset for C =  $\gamma=20,27^\circ$

Cartesian coordinates in the third and fourth sector can be calculated as follows:

$$x = \cos(\delta + (\text{total offset})) r$$

$$y = -\sin(\delta + (\text{total offset})) r$$

This product is engineered to work with all mainboards using the reference AM4 design, keep out zones and a standard board layout. The design has gone through rigorous testing to ensure broad compatibility. For more information on this product visit:

[www.der8auer.de](http://www.der8auer.de)

NOTES:

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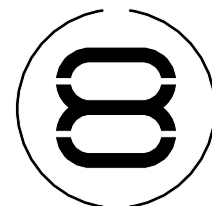
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**DER BAUER**

der8auer ECC - Extreme Cooling Components

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