



Dear customer,

Congratulations on choosing the Noctua NH-L12. This smaller size cooler packs all essential technologies of our award-winning high-end models into a highly compact package in order to give you the best possible quiet cooling experience for HTPCs and small form factor builds. I'm confident that you will be able to sense some of the research, attention and care we've put into making this product. Enjoy your NH-L12!

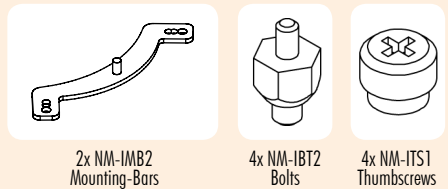
Yours sincerely,

*R. Mosig*  
Roland Mossig, Noctua CEO

This manual will guide you through the installation process of the SecuFirm2™ mounting system step by step. Prior to installing the cooler, please consult the compatibility list on our website ([www.noctua.at/compatibility](http://www.noctua.at/compatibility)) and verify that the cooler is fully compatible with your motherboard. Should you encounter any difficulties, please check the FAQs on our website ([www.noctua.at/faqs](http://www.noctua.at/faqs)) and don't hesitate to contact our support team at [support@noctua.at](mailto:support@noctua.at). Noctua cannot be held responsible for any damage or losses caused by compatibility issues.

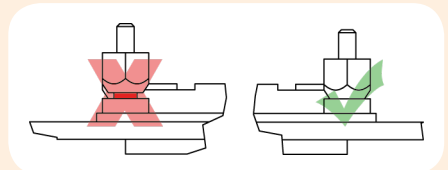
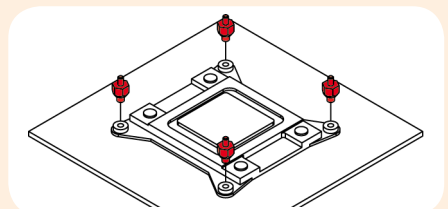
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### Required mounting parts:

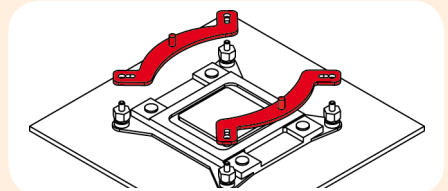


### Step 1 Installing the mounting-bars

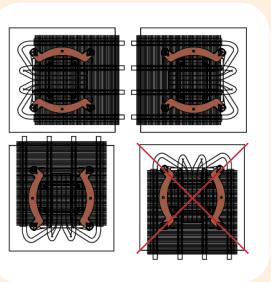
First screw the NM-IBT2 bolts into the screw threads of the LGA2011 socket frame.



Then put the NM-IMB2 mounting-bars onto the bolts.

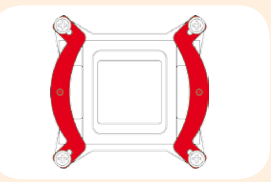


**Caution:** Choose the alignment of the mounting bars according to the desired final orientation of the cooler:

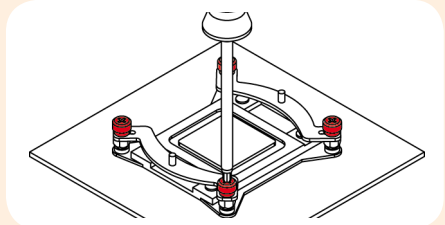


**Caution:** In tower style cases, please avoid installing the NH-L12 with the bends of the heatpipes pointing upwards as this may result in reduced cooling performance.

**Caution:** Make sure that the curved sides of the mounting bars are pointing outwards.



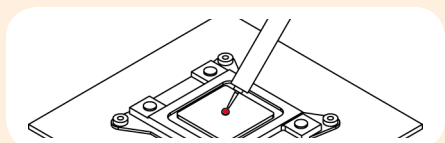
Fix the mounting bars using the NM-ITS1 thumbscrews.



**Caution:** Gently tighten the screws until they stop, but don't use excessive force.

### Step 2 Applying thermal paste

If there are residual traces of thermal paste or thermal pads on your CPU, please clean them off first. Then press a small drop (4-5mm diameter) of NT-H1 onto the centre of the heatspreader.

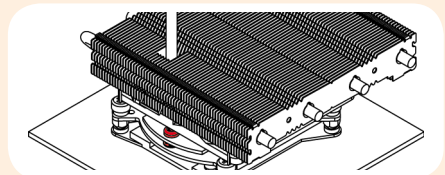


**Caution:** Applying too much thermal paste will lower the heat conductivity and cooling performance!

### Step 3 Fastening the heatsink to the CPU

**Caution:** Please first take off the protection cover at the bottom side of the heatsink and remove the rubber support bar between the bottom fan and the base of the heatsink!

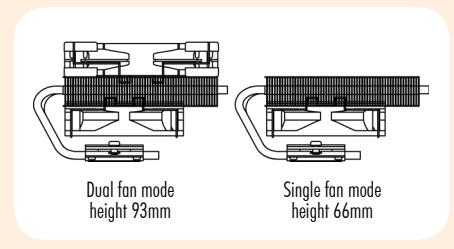
Take off the top fan. Then put the heatsink onto the CPU and screw it to the screw threads of the mounting bars. Note that you can reach through the blades of the lower fan using the supplied screw driver. There is thus no need to take off the lower fan for installation.



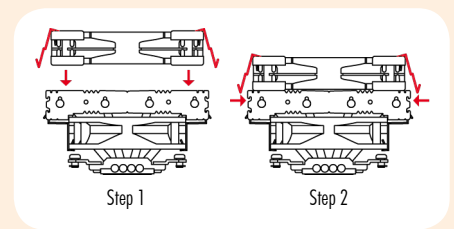
**Caution:** Tighten the screws until they stop.

### Step 4 Fan Setup

The NH-L12 can be used with both fans for maximum performance or with the NF-B9 fan only in order to reduce the total height to 66mm:



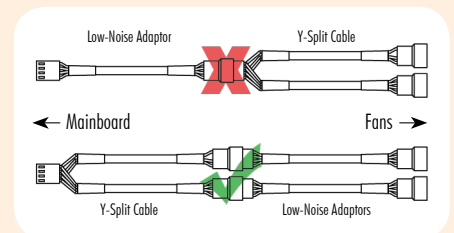
If you want to use both fans, put the NF-F12 fan back on. If you don't run the NF-F12 on the CPU cooler, you can use the supplied fan screws or silicone Vibration-Compensators to install it inside your case.



Connect the fan(s) to the motherboard. Use the supplied NA-YC1 y-split cable to connect both fans to one fan header.

Depending on your CPU and the temperature inside the case, you may interconnect the supplied NA-RC6 and NA-RC7 Low-Noise Adapters (L.N.A.) in order to further reduce the fans operating noise. Use the NA-RC6 for the NF-F12 120mm fan and the NA-RC7 for the NF-B9 92mm fan.

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**Caution:** When using the L.N.A., check the temperature of your CPU using appropriate software (e.g. the respective applications of your motherboard manufacturer), in order to evade automatic throttling of the CPU due to the increased temperature. If the cooling performance is insufficient, please increase case ventilation or remove the L.N.A.

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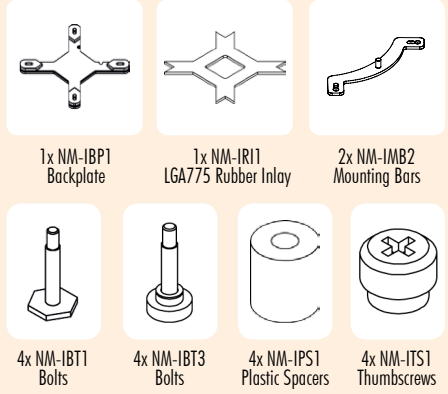
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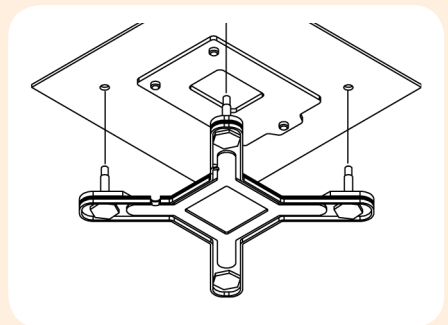


### Step 1

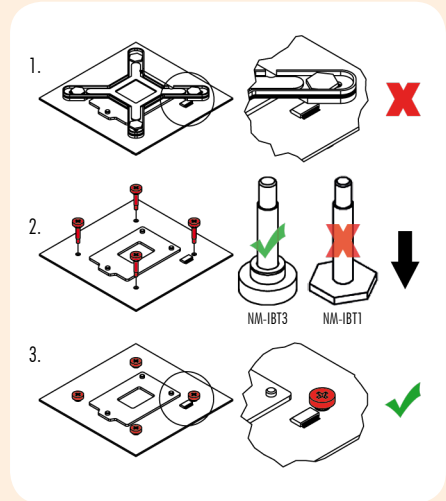
#### Removing the mainboard

In case you want to use the cooler on an assembled system, you first have to remove the mainboard from the case in order to be able to install the supplied backplate.

**Caution:** On LGA1366 and LGA115x, the supplied backplate will install over the mainboard's stock backplate, so the mainboard's stock backplate must not be taken off.



**Caution:** Some Mini-ITX mainboards have larger components (such as capacitors or I/O Chips) on the rear side that would make contact with the NM-IBP1 backplate. As there is a risk of damaging the mainboard when the backplate presses onto these components, please use the supplied NM-IBT3 bolts instead of the NM-IBP1 backplate and NM-IBT1 bolts when installing the NH-L12 on mainboards with larger components on the rear side. Proceed with **Step 4** after inserting the NM-IBT3 bolts as shown below. If in doubt, please consult the compatibility list of [www.noctua.at/compatibility](http://www.noctua.at/compatibility) or contact our support team!

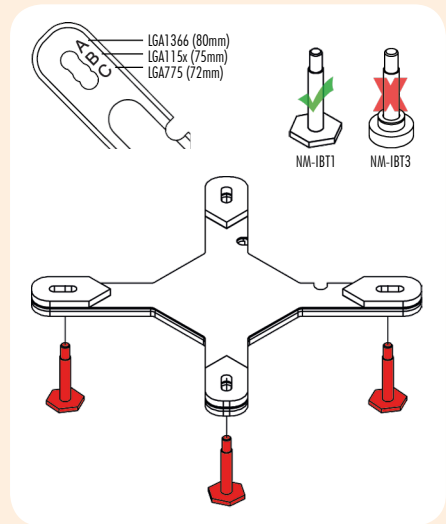


### Step 2

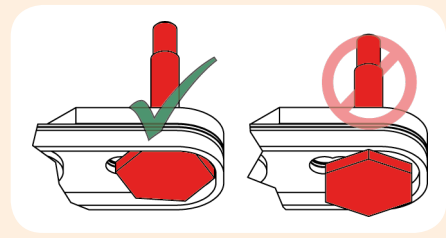
#### Setting up the backplate

First put the four NM-IBT1 bolts into the holes appropriate for your motherboard's CPU socket.

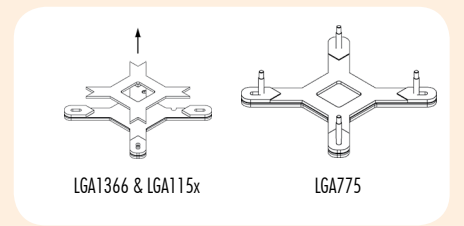
**Caution:** Make sure to use NM-IBT1 and not NM-IBT3!



**Caution:** Please verify that all four NM-IBT1 bolts are put into the appropriate holes and fully pushed in.



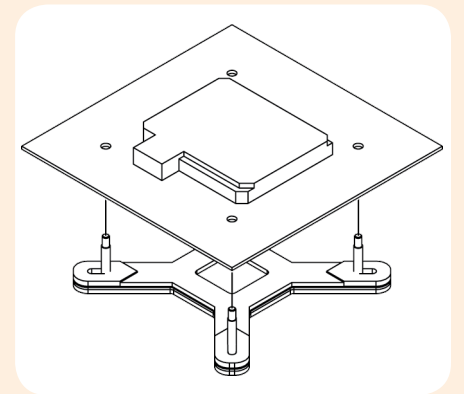
For use on LGA1366 and LGA115x mainboards, please remove the rubber inlay. Make sure that the rubber inlay is in place for LGA775.



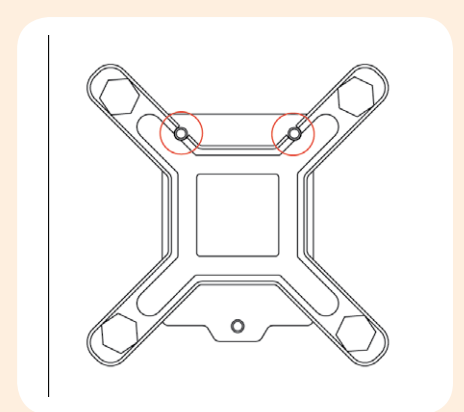
### Step 3

#### Attaching the backplate

Place the backplate on the rear side of the mainboard so that the bolts stick through the mounting holes.



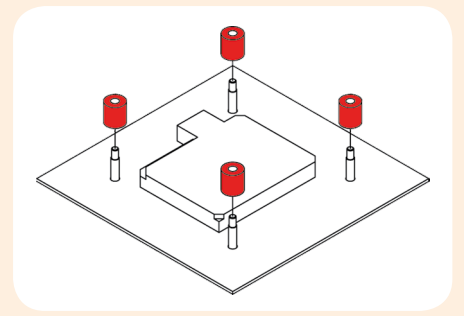
**Caution:** On LGA115x, please make sure that the two cuts in the supplied backplate align with the screws of the mainboard's stock backplate.

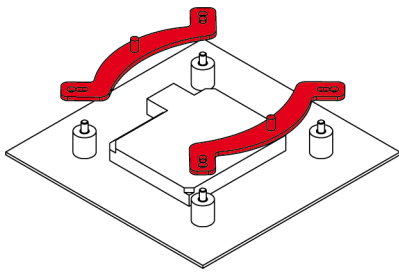


### Step 4

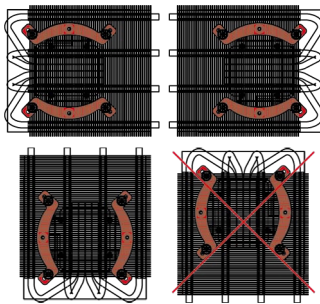
#### Installing the mounting bars

First put the plastic spacers onto the bolts, then add the mounting bars.



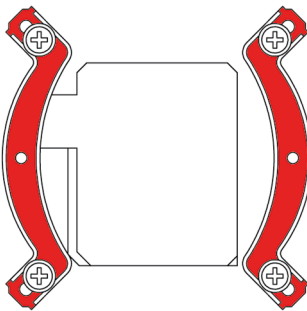


**Caution:** Choose the alignment of the mounting bars according to the desired final orientation of the cooler:

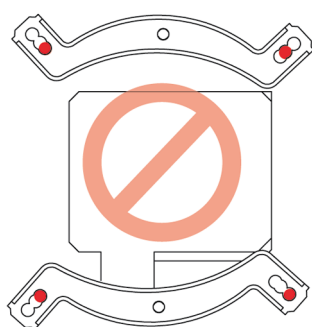


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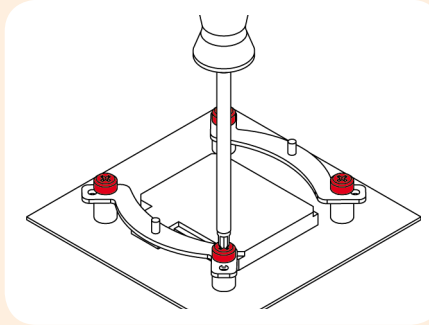
**Caution:** Make sure that the curved sides of the mounting bars are pointing outwards.



**Caution:** Make sure to use the correct holes on the mounting bars.



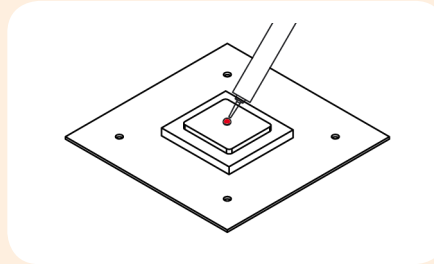
Fix the mounting bars using the 4 thumb screws.



**Caution:** Gently tighten the screws until they stop, but don't use excessive force.

### Step 5 Applying thermal paste

If there are residual traces of thermal paste or thermal pads on your CPU, please clean them off first. Then press a small drop (4-5mm diameter) of NT-H1 onto the centre of the heat-spreader.

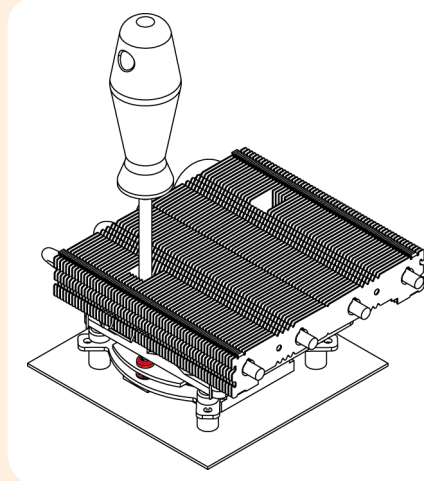


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### Step 6 Fastening the heatsink to the CPU

**Caution:** Please first take off the protection cover at the bottom side of the heatsink and remove the rubber support bar between the bottom fan and the base of the heatsink!

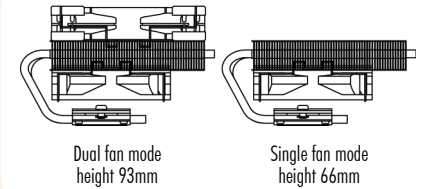
Take off the top fan. Then put the heatsink onto the CPU and screw it to the screw threads of the mounting bars. Note that you can reach through the blades of the lower fan using the supplied screw driver. There is thus no need to take off the lower fan for installation.



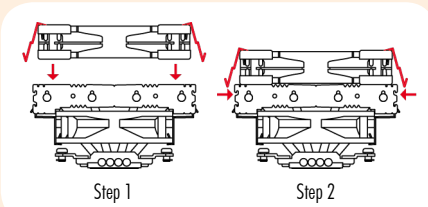
**Caution:** Tighten the screws until they stop.

### Step 7 Fan Setup

The NH-L12 can be used with both fans for maximum performance or with the NF-B9 fan only in order to reduce the total height to 66mm:



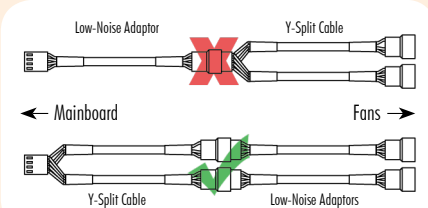
If you want to use both fans, put the NF-F12 fan back on. If you don't run the NF-F12 on the CPU cooler, you can use the supplied fan screws or silicone Vibration-Compensators to install it inside your case.



Connect the fan(s) to the mainboard. Use the supplied NA-YC1 y-split cable to connect both fans to one fan header.

Depending on your CPU and the temperature inside the case, you may interconnect the supplied NA-RC6 and NA-RC7 Low-Noise Adaptors (L.N.A.) in order to further reduce the fans operating noise. Use the NA-RC6 for the NF-F12 120mm fan and the NA-RC7 for the NF-B9 92mm fan.

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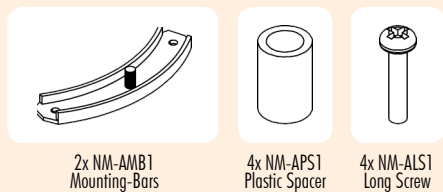
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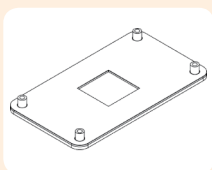
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### Required mounting parts:



**Caution:** The SecuFirm2™ mounting system requires a backplate, which is preinstalled on most AMD mainboards.

If your mainboard doesn't have a backplate, please contact our support team at [support@noctua.at](mailto:support@noctua.at).



AMD stock backplate

### Step 1

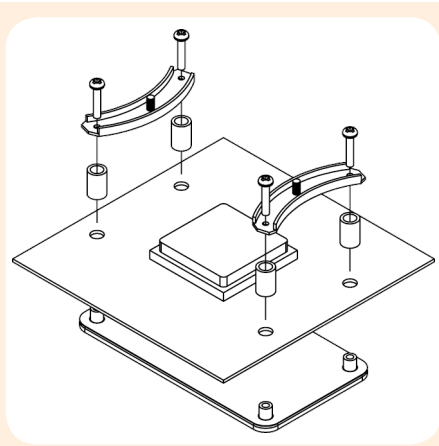
## Removing the retention module

If your mainboard uses a retention module for CPU cooler installation, please remove it first. The SecuFirm2™ mounting system will install directly to your mainboard's stock backplate on the rear side of the socket.

### Step 2

## Attaching the mounting bars

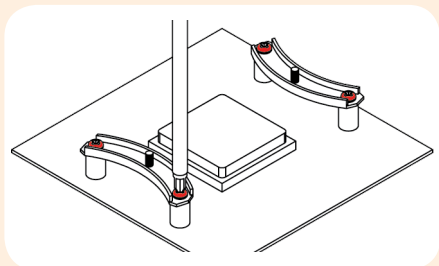
First put the plastic spacers onto the screw threads, then fix the mounting bars using the 4 long screws.



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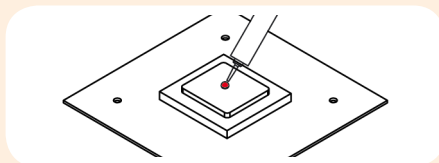
**Caution:** Tighten the screws until they stop.



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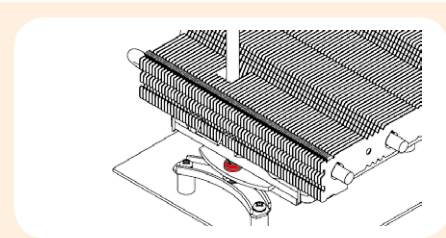
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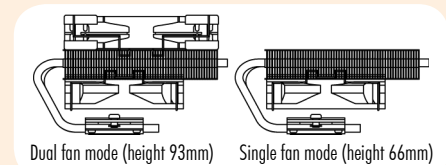


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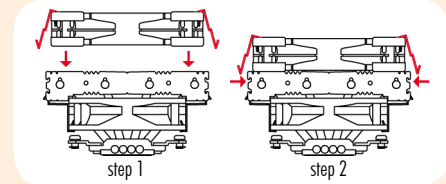
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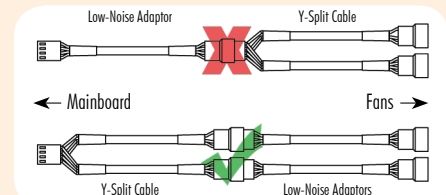


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