



Dear customer,

Thank you very much for choosing the Noctua NH-U12A.

First introduced in 2005, our NH-U12 series has won more than 600 awards and recommendations from leading international hardware websites and magazines. The NH-U12A is the latest addition to this prestigious series and 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 Noctua NH-U12A!

Yours sincerely,

  
 Roland Mossig, Noctua CEO

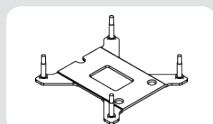
This manual will guide you through the installation process of the SecuFirm2™ mounting system step by step.

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. Please also make sure that your PC case offers sufficient clearance for the cooler and that there are no compatibility issues with any other components (e.g. tall RAM modules). Double check that the heatsink and fan clips do not make contact with the VGA card or other PCIe cards. Noctua cannot be held responsible for any damage or losses caused by compatibility issues.

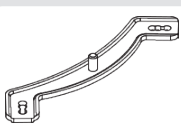
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## Required mounting parts:



1x NM-IBP2 backplate



2x NM-IMB3 mounting bars



4x NM-IPS1 plastic spacers

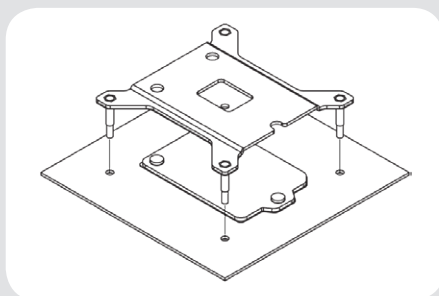


4x NM-ITS1 thumb screws

## 1 Removing the motherboard

In case you want to use the cooler on an assembled system and your case doesn't have a cut-out at the rear side of the motherboard tray, you first have to remove the motherboard from the case in order to be able to install the supplied backplate.

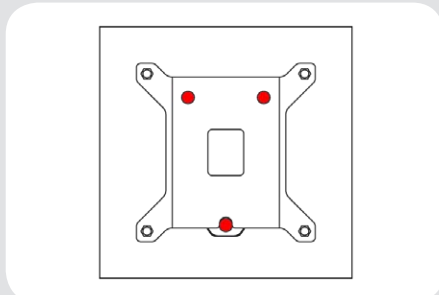
## 2 Attaching the backplate



**Caution:** The supplied backplate will install over the motherboard's stock backplate, so the motherboard's stock backplate must not be taken off.

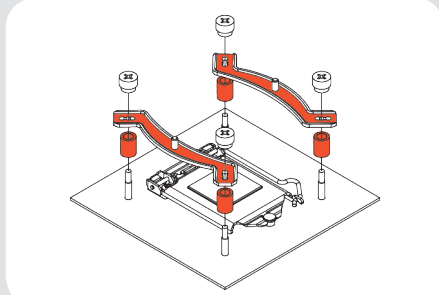
Place the backplate on the rear side of the motherboard so that the bolts stick through the mounting holes.

**Caution:** Please make sure that the three cut-outs in the supplied backplate align with the screws of the motherboard's stock backplate.

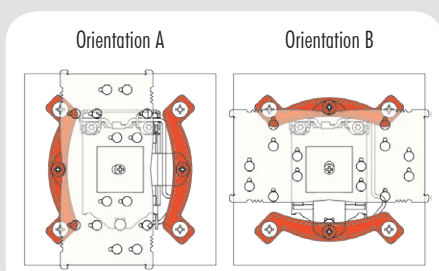


## 3 Installing the mounting bars

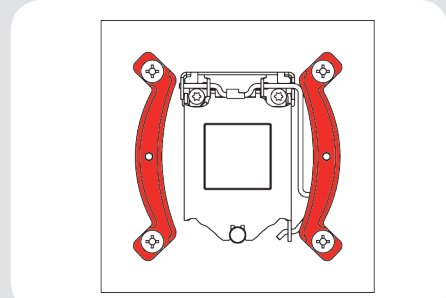
First put the plastic spacers onto the bolts of the backplate, then add the mounting bars.



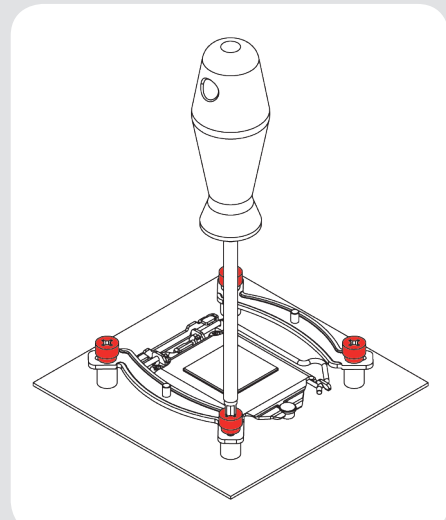
**Caution:** Choose the alignment of the mounting bars according to the desired final orientation of the cooler:



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



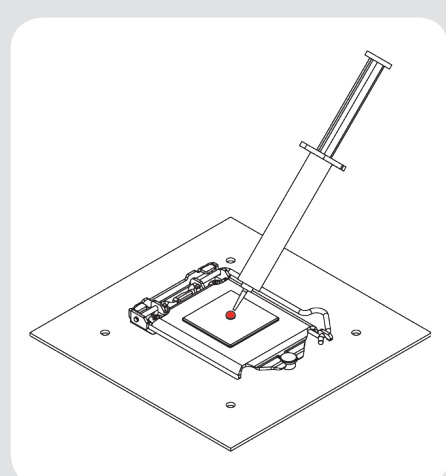
Fix the mounting bars using the 4 thumb screws.



**Caution:** Gently tighten the screws until they stop, but don't use excessive force (max. torque 0.6 Nm).

## 4 Applying the 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 (3-4mm diameter) of NT-H1 onto the centre of the heatspreader.

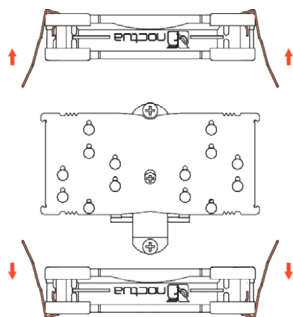


**Caution:** Applying too much thermal paste will lower heat conductivity and cooling performance!

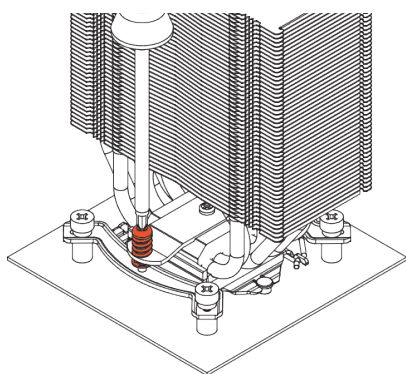


## 5 Fastening the heatsink to the CPU

**Caution:** Please first take off the fans as well as the protection cover at the bottom side of the heatsink.



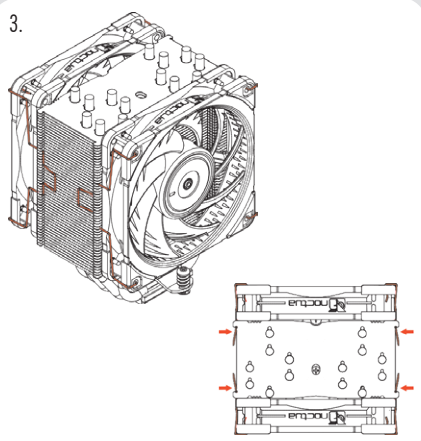
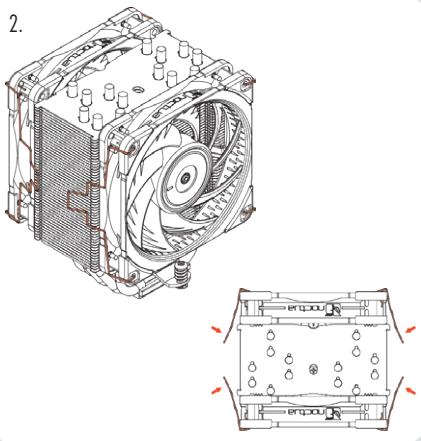
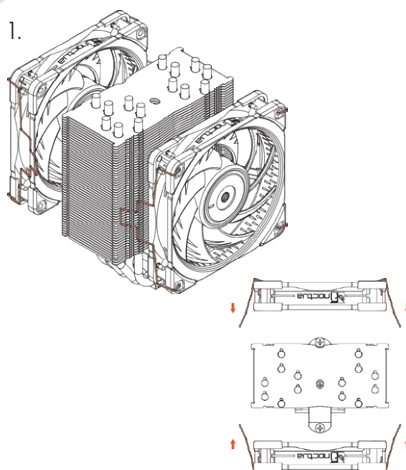
Then put the heatsink onto the CPU and screw it to the screw threads of the mounting bars. Perform 2-3 turns on each screw, then repeat until both are fully tightened.



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## 6 Fan setup

Reattach both fans using the supplied steel clips for maximum cooling performance. Alternatively, you can leave the rear fan off and use it as a case fan instead.

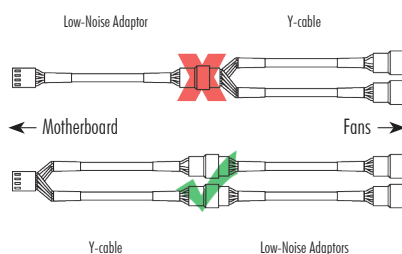


Connect the fan(s) to the motherboard's CPU fan header(s). If necessary, use the supplied NA-YC1 y-cable to connect both fans to one fan header.

Depending on your CPU and the temperature inside the case, you may interconnect the supplied NA-RC14 Low-Noise Adaptors (L.N.A.) in order to further reduce the fans' operating noise.

**Caution:** Never use one adaptor for both fans by putting it before the y-cable.

**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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## ! Transporting your system

As it is not possible to reliably calculate or control the forces that act upon a system during transport (e.g. in shipping), we generally recommend, for safety reasons, taking the cooler off. Noctua cannot be held responsible for any damage that may arise due to excessive stress during transport if you keep the heatsink installed.

## ! Warranty, support and FAQs

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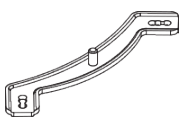
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## Required mounting parts:



2x NM-IMB3 mounting bars



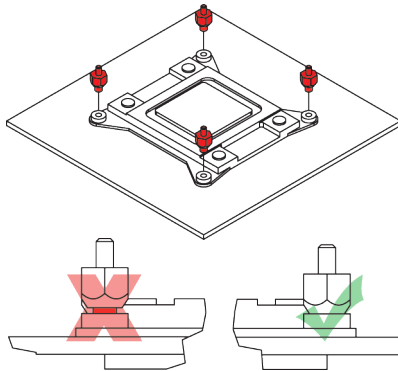
4x NM-IBT2 bolts



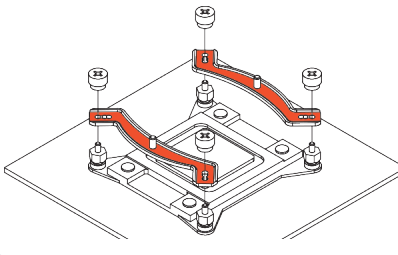
4x NM-ITS1 thumb screws

## 1 Installing the mounting bars

First screw the NM-IBT2 bolts into the screw threads of the LGA20xx socket frame.

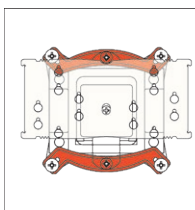


Then put the NM-IMB3 mounting bars onto the bolts.

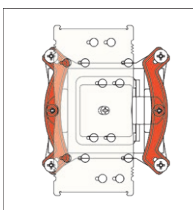


**Caution:** Choose the alignment of the mounting bars according to the desired final orientation of the cooler:

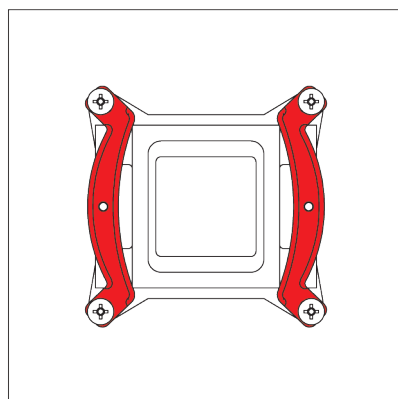
Orientation A



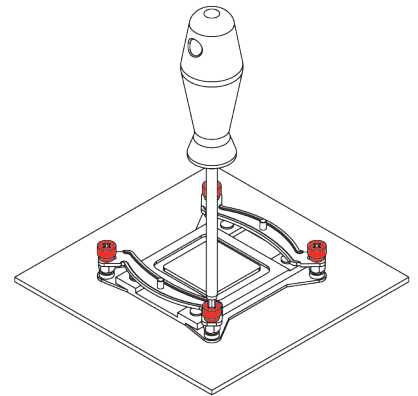
Orientation B



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



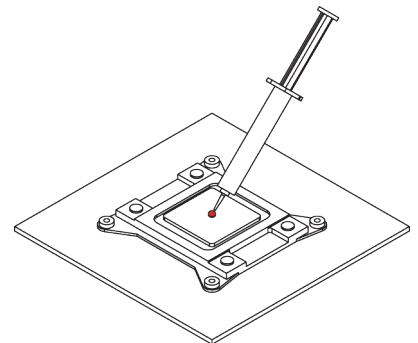
Fix the mounting bars using the 4 thumb screws.



**Caution:** Gently tighten the screws until they stop, but don't use excessive force (max. torque 0.6 Nm).

## 2 Applying the thermal paste

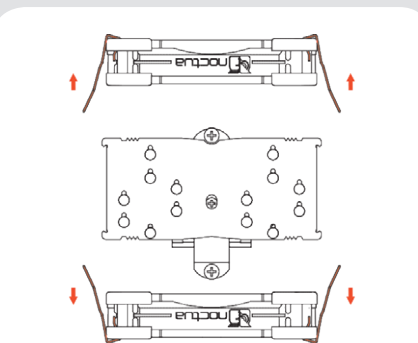
If there are residual traces of thermal paste or thermal pads on your CPU, please clean them off first. Then press a small drop (4-5mm diameter) of NT-H1 onto the centre of the heatspreader.



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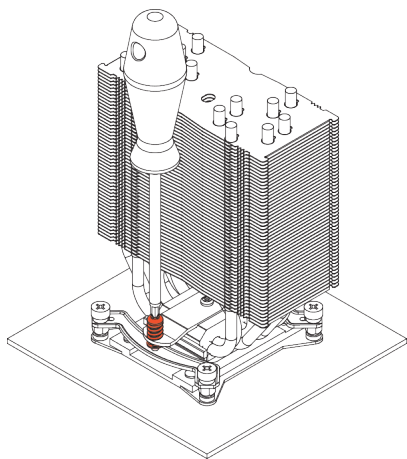
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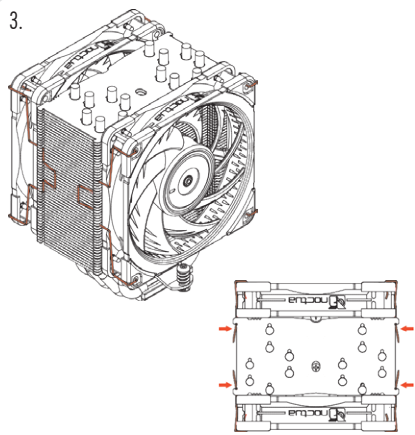
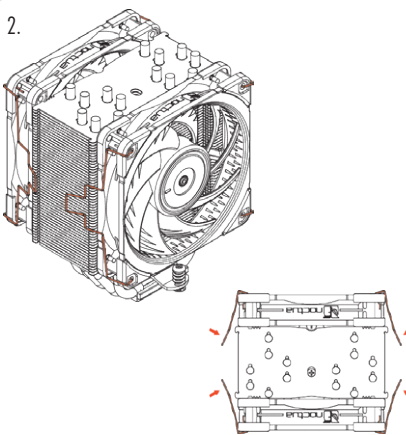
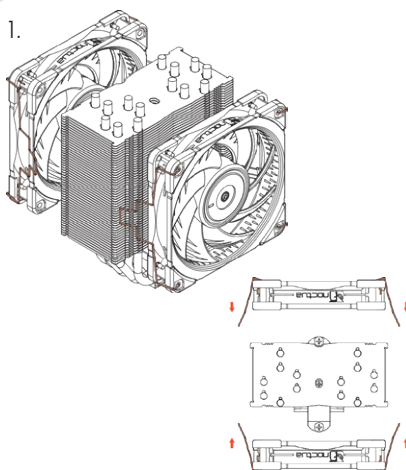
Then put the heatsink onto the CPU and screw it to the screw threads of the mounting bars. Perform 2-3 turns on each screw, then repeat until both are fully tightened.



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## 4 Fan setup

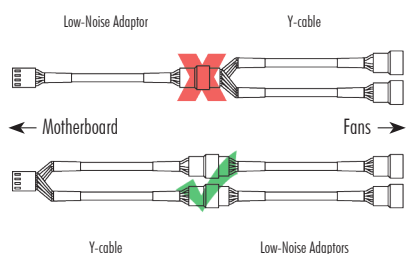
Reattach both fans using the supplied steel clips for maximum cooling performance. Alternatively, you can leave the rear fan off and use it as a case fan instead.



Connect the fan(s) to the motherboard's CPU fan header(s). If necessary, use the supplied NA-YC1 y-cable to connect both fans to one fan header.

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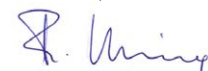
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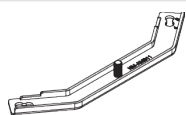
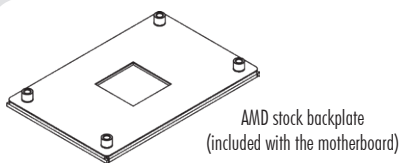
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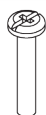
2x NM-AMB11 mounting bars



4x NM-APS4  
plastic spacers for  
AM4



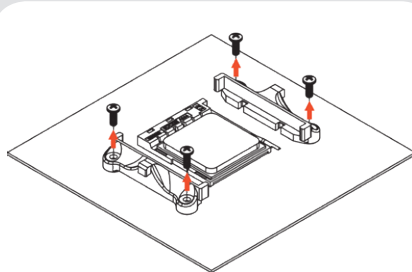
4x NM-APS5  
plastic spacers for  
AM2(+)/AM3(+)  
FM1/FM2(+)



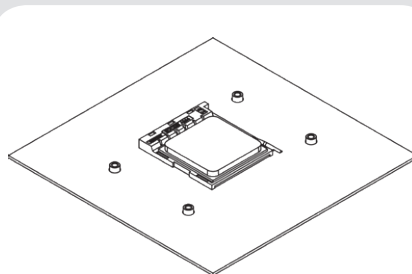
4x NM-ALS1  
screws

## 1 Removing the stock retention module - Putting the backplate in place

If your motherboard comes with a pre-installed CPU cooler retention module, please first remove it by unscrewing it from the backplate. The SecuFirm2™ mounting system will install directly to the stock backplate, so please keep it in place.



If your motherboard does not come with a pre-installed CPU cooler retention module, the AMD stock backplate should be included with the motherboard accessories. Please put the backplate on the rear side of the motherboard so that the screw threads of the backplate stick through the mounting holes of the motherboard as shown below. If your motherboard does not include a stock backplate, please contact Noctua customer support at [support@noctua.at](mailto:support@noctua.at).



## 2 Installing the mounting bars

Please first choose the correct set of plastic spacers and the correct set of holes on the mounting bars depending on whether you are using a socket AM4 or a socket AM2(+)/AM3(+)/FM1/FM2(+)

AM4



NM-APS4 (grey)

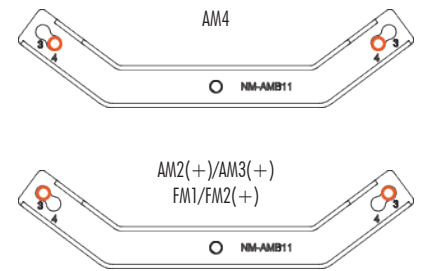
AM2(+)/AM3(+)  
FM1/FM2(+)



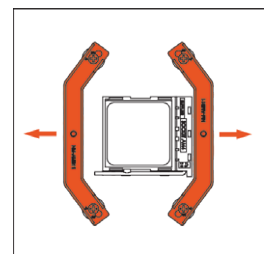
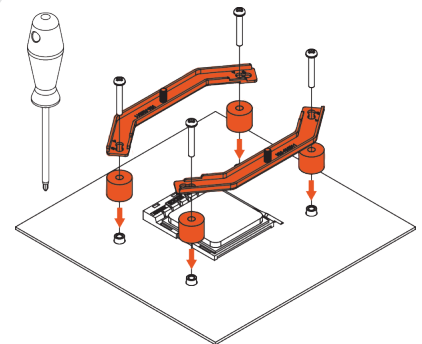
NM-APS5 (white)

Use the grey NM-APS4 spacers for AM4 and the white NM-APS5 spacers for AM2(+)/AM3(+)/FM1/FM2(+).

Use the set of holes marked with "4" for AM4 and the set of holes marked with "3" for AM2(+)/AM3(+)/FM1/FM2(+).



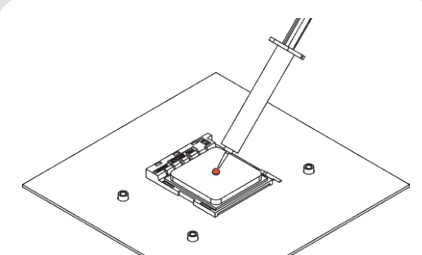
First put the plastic spacers onto the screw threads of the backplate, then fix the mounting bars using the four long screws.



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

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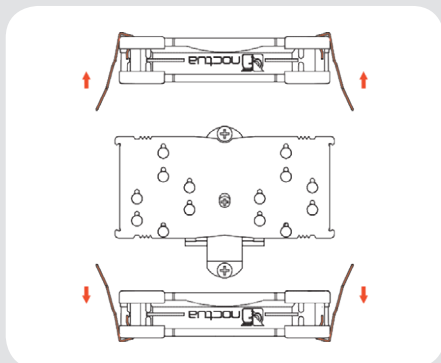


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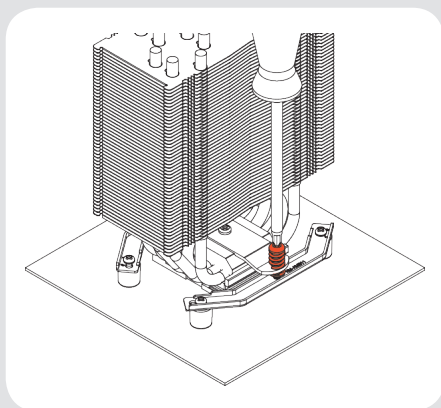


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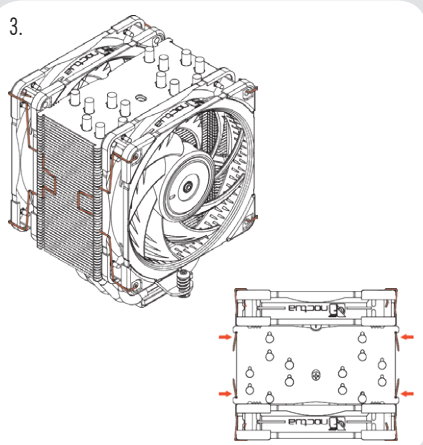
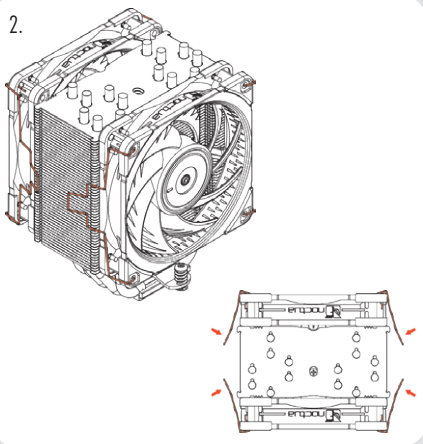
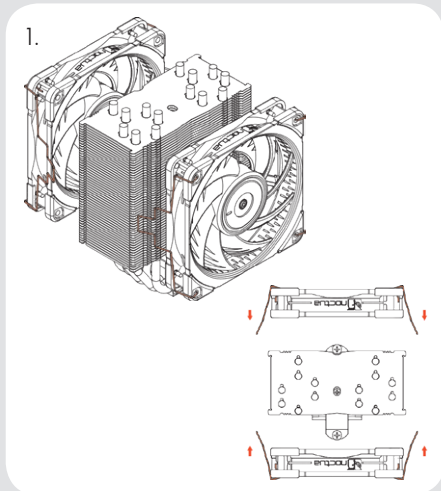
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## 5 Fan setup

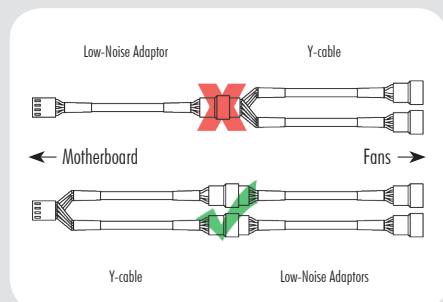
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