NOCTUA NH-D15 G2
INSTALLATION MANUAL

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INTEL   AMD

Dear customer,

Thank you very much for choosing the Noctua NH-D15 G2.

For an entire decade, the original NH-D15 was widely regarded as the best air cooler on the market. The G2 version continues this legacy by further improving on the renowned quiet cooling performance of its iconic predecessor.

Enjoy your Noctua NH-D15 G2!

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 centre on our website (ncc.noctua.at) and verify that the cooler is fully compatible with your motherboard, CPU, RAM and case. Please also make sure that there are no compatibility issues with any other components.

Double check that the heatsink and fan clips do not make contact with the VGA card, other PCIe cards, motherboard heatsinks or any other components.

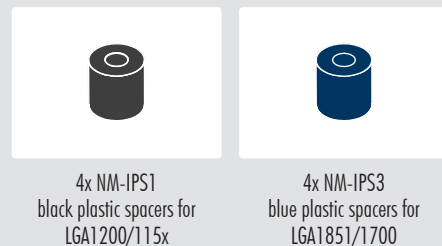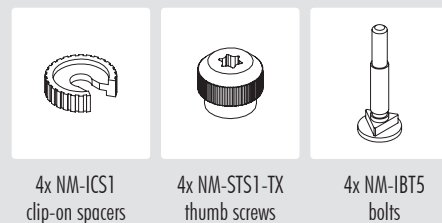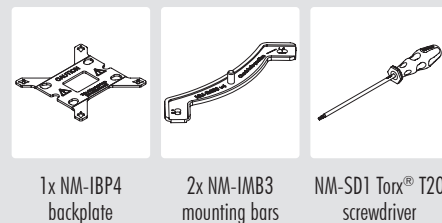Noctua cannot be held responsible for any damage or losses caused by compatibility issues.

Should you encounter any difficulties, please check the FAQs on our website (faqs.noctua.at) and don't hesitate to contact our support team at support@noctua.at.

Multilingual versions of this manual are available on our website: www.noctua.at/manuals

INTEL — LGA1851, LGA1700, LGA1200 & LGA115x

Required mounting parts:

1x NM-IBP4 backplate

2x NM-IMB3 mounting bars

NM-SD1 Torx® T20 screwdriver

4x NM-ICS1 clip-on spacers

4x NM-STS1-TX thumb screws

4x NM-IBT5 bolts

4x NM-IPS1 black plastic spacers for LGA1200/115x

4x NM-IPS3 blue plastic spacers for LGA1851/1700
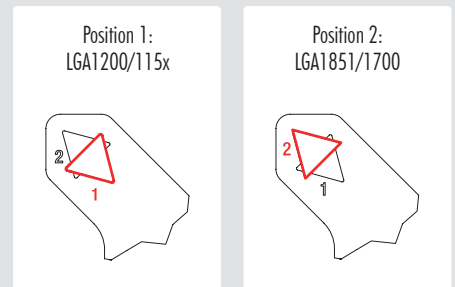
1   Removing the motherboard

If you would like to use the cooler on an assembled system and your case does not have a cut-out at the rear side of the motherboard tray, you must first remove the motherboard from the case in order to be able to install the supplied backplate.

2   Setting up the backplate

First, identify the side of the backplate that should face the motherboard (marked with caution signs). Then choose the appropriate hole spacing for your socket and insert the four bolts into the backplate from the opposite side (marked with model name, SecuFirm2™ branding and numbers for hole spacing) at the appropriate position.
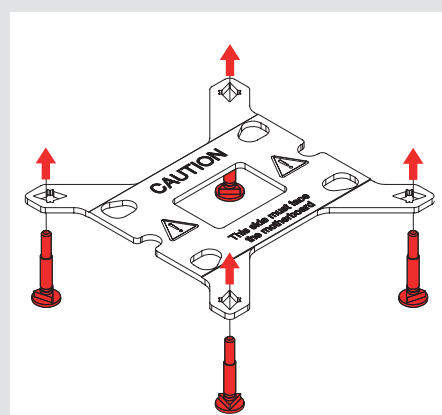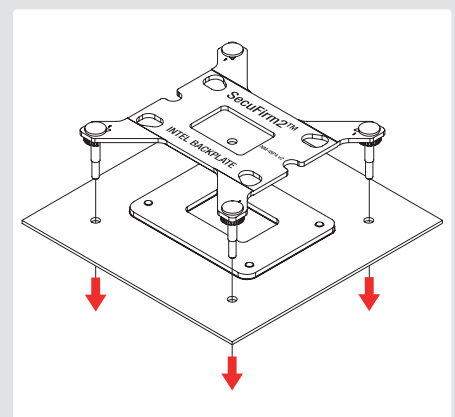

Use hole position 1 for LGA1200/LGA115x (LGA1150, LGA1151, LGA1155, LGA1156) and hole position 2 for LGA1851/LGA1700:

Position 1: LGA1200/115x

Position 2: LGA1851/1700

Fix the bolts using the NM-ICS1 clip-on spacers.
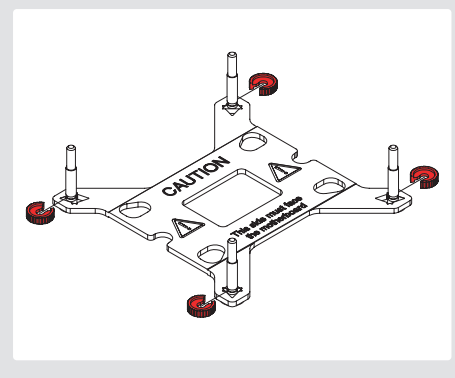

3   Attaching the backplate

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 protrude through the mounting holes.

4   Installing the mounting bars

Please first choose the correct set of plastic spacers and the correct set of holes on the mounting bars according to whether you are using an LGA1200/LGA115x (LGA1150, LGA1151, LGA1155, LGA1156) or an LGA1851/LGA1700 socket motherboard.

Use the black NM-IPS1 plastic spacers for LGA1200/LGA115x (LGA1150, LGA1151, LGA1155, LGA1156) and the blue NM-IPS3 plastic spacers for LGA1851/LGA1700.
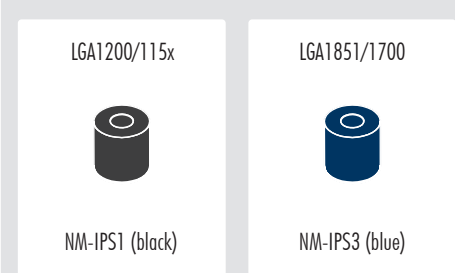
LGA1200/115x — NM-IPS1 (black)

LGA1851/1700 — NM-IPS3 (blue)

Use hole position 1 for LGA1200/LGA115x (LGA1150, LGA1151, LGA1155, LGA1156) and hole position 2 for LGA1851/LGA1700:

Position 1: LGA1200/115x

Position 2: LGA1851/1700
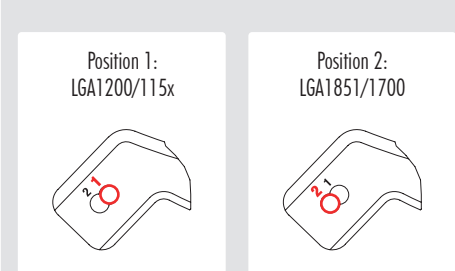
Put the plastic spacers onto the bolts of the backplate, then add the mounting bars.
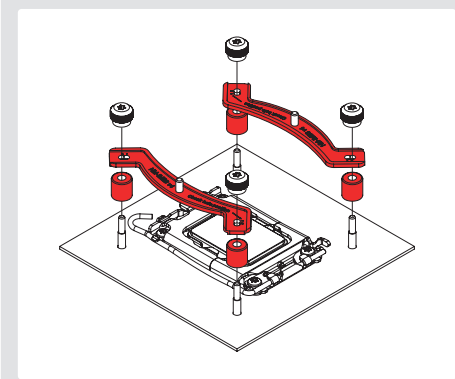
Caution: Choose the alignment of the mounting bars according to the desired final orientation of the cooler.

Orientation 1 (default orientation)

Orientation 2
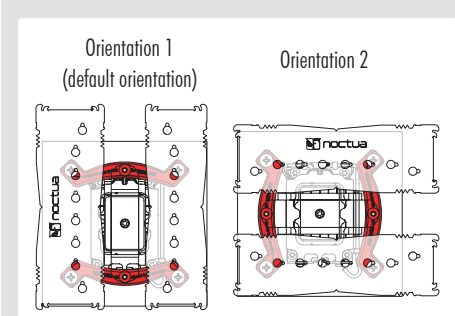
Caution: Make sure that the curved sides of the mounting bars are pointing outwards.
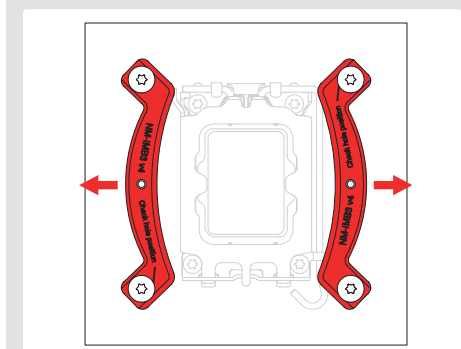
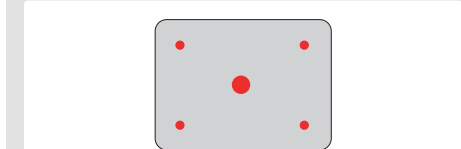Fix the mounting bars using the four NM-STS1-TX thumb screws.
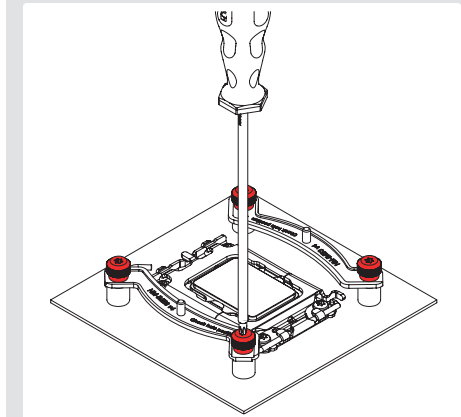
Caution: Gently tighten the screws until they stop, but do not use excessive force (max. torque 0.6 Nm).
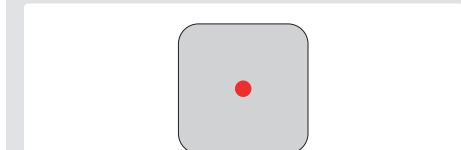
5   Applying the thermal paste

If there are residual traces of thermal paste or thermal pads on your CPU, please clean them off first. Then apply the supplied NT-H2 thermal paste onto the CPU as shown in the following images.

For LGA1851/LGA1700, apply 5 small dots; 4 dots with ~2mm diameter near the corners plus 1 dot with 3-4mm diameter in the centre:
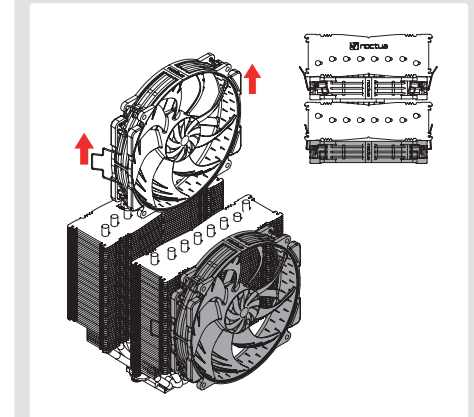

For LGA1200/LGA115x (LGA1150, LGA1151, LGA1155, LGA1156) apply a single 4-5mm dot in the centre:

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

6   Fastening the heatsink to the CPU

Please first take off the centre fan. It is not necessary to remove the front fan for installation.

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.
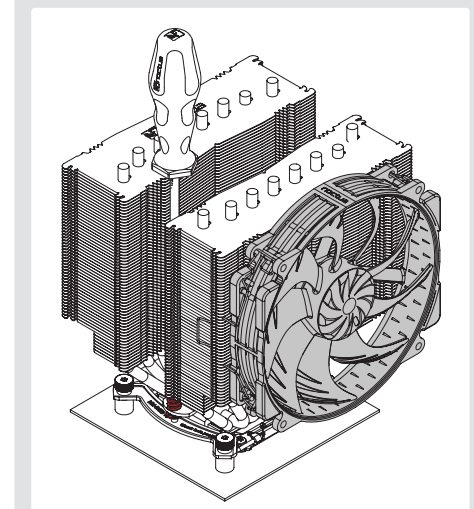
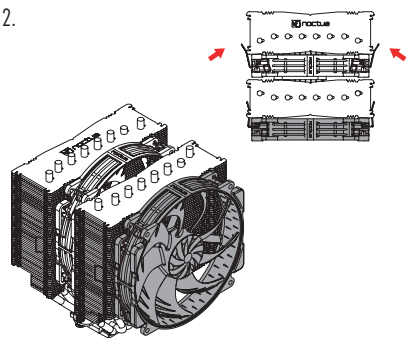Caution: Gently tighten the screws until they stop, but do not use excessive force (max. torque 0.6 Nm).

7   Fan setup

First, carefully remove the protective paper from the inside of the fan frames. Then, reattach the centre fan.
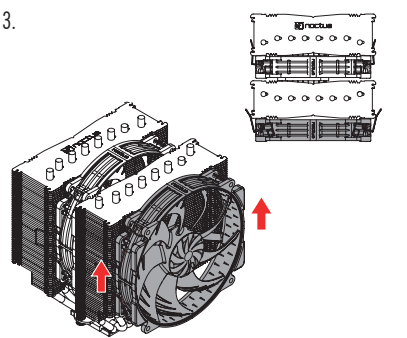
1.

Scan this code to display multilingual manuals on your phone.
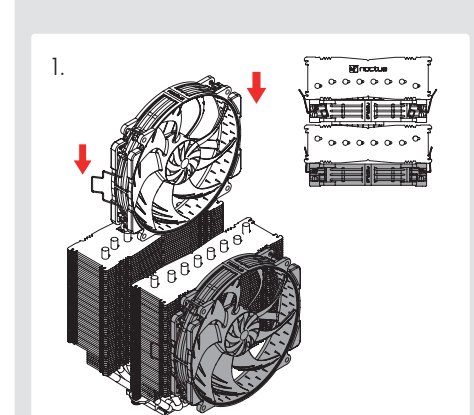
2.

For increased RAM clearance, the front fan can also be moved upwards. Please note, however, that this will increase the total cooler height beyond 168mm:

3.

Additionally, the cooler may also be used with the centre fan only in order to guarantee best compatibility with tall RAM modules.

Connect the fan(s) to the motherboard's CPU fan header(s). If necessary, use the supplied NA-YC1 splitter 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-RC16 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 splitter cable.

Low-Noise Adaptor — splitter cable

← Motherboard — Fans →

splitter cable — Low-Noise Adaptors
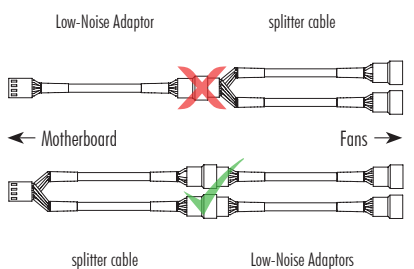
Caution: When using the L.N.A.s, check the temperature of your CPU using appropriate software (e.g. the respective applications of your motherboard manufacturer), in order to evade automatic throttling of the CPU due to the increased temperature.

If the cooling performance is insufficient, please increase case ventilation or remove the L.N.A.s.

! 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

Even with high-grade products and strict quality control, the possibility of defects cannot be eliminated entirely.
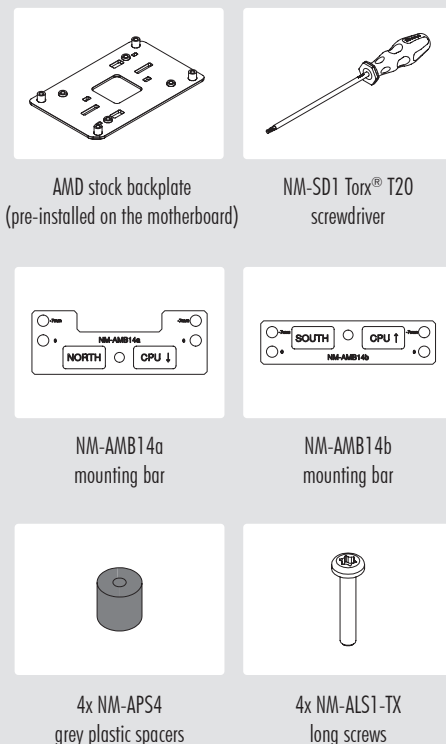
Therefore, we aim at providing the highest possible level of reliability and convenience by offering a warranty period of 6 years and direct, fast and straightforward RMA service.

Should you encounter any problems with your NH-D15 G2, please don't hesitate to contact our support team (support@noctua.at).

Please also consult the FAQ section on our website: faqs.noctua.at

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AMD   AM5 & AM4

Required mounting parts:

AMD stock backplate (pre-installed on the motherboard)

NM-SD1 Torx® T20 screwdriver

NM-AMB14a mounting bar

NM-AMB14b mounting bar

4x NM-APS4 grey plastic spacers

4x NM-ALS1-TX long screws

1   Removing the stock retention module — putting the backplate in place

The SecuFirm2+™ mounting system will install directly to the stock backplate, so please first remove the motherboard's stock CPU cooler retention module by unscrewing it from the backplate (if it has not already been removed for previous installations).
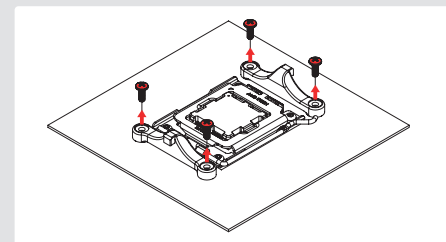
On AM4, the stock backplate will become loose when unscrewing the retention module, so hold it in place for the next step. If you have lost your stock AM4 backplate, please contact us at support@noctua.at. On AM5, the stock backplate is screw-fixed to the socket, so should simply remain in place.
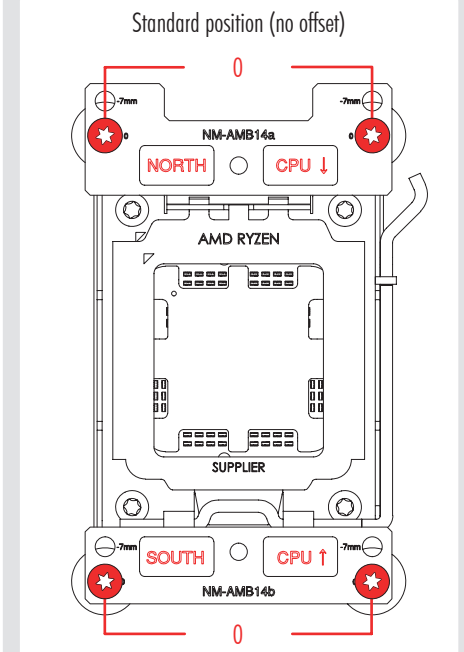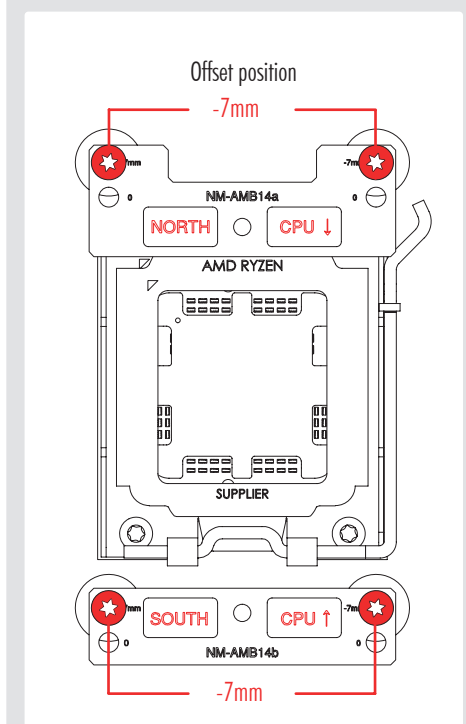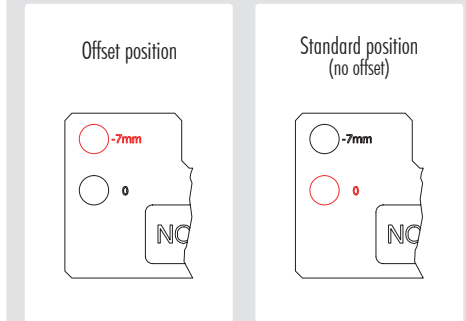
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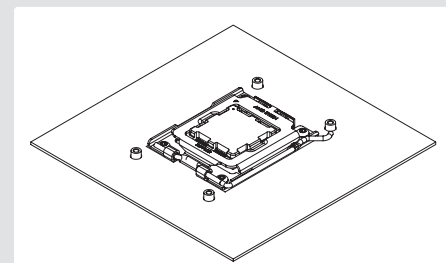
2   Installing the mounting bars

First put the plastic spacers onto the screw threads of the backplate. Then fix the NM-AMB14 mounting bars using the four NM-ALS1-TX long screws.
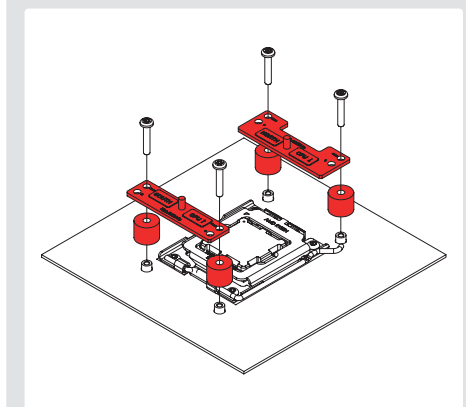
On AM5 and Ryzen 5000/3000 series AM4 CPUs, choose the -7mm offset hole position to ensure optimal contact quality and performance.

On APUs as well as other AM4 CPUs, or if there are any compatibility issues in the offset position (e.g. clearance with motherboard heatsinks), please choose the standard position (0).

Offset position

Standard position (no offset)

Offset position

-7mm

NM-AMB14a

NORTH   CPU ↓

AMD RYZEN

SUPPLIER

SOUTH   CPU ↑

NM-AMB14b

-7mm

Standard position (no offset)

0

-7mm   -7mm

NM-AMB14a

NORTH   CPU ↓

AMD RYZEN

SUPPLIER

-7mm   -7mm

SOUTH   CPU ↑

NM-AMB14b

0

Caution: Make sure that the "CPU →" markings point towards the CPU and that the NM-AMB14a bar with the "NORTH" marking is installed on the north (top) side of the socket and the NM-AMB14b bar with the "SOUTH" marking is installed on the south (bottom) side of the socket, as shown above.

Gently tighten the screws until they stop, but do not use excessive force (max. torque 0.6 Nm).
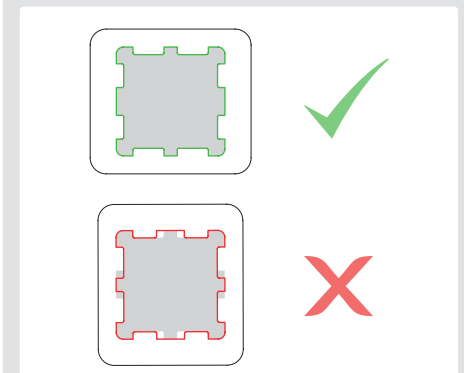
3   Applying the thermal paste

If there are residual traces of thermal paste or thermal pads on your CPU, please clean them off first.
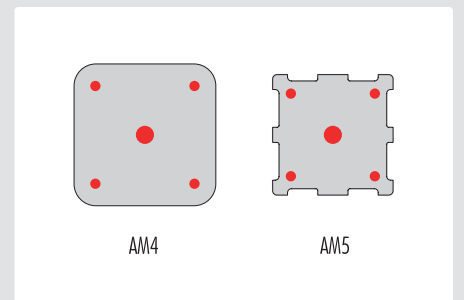
On AM5, put the NA-TPG1 thermal paste guard onto the CPU to prevent the build-up of excess thermal paste in the cut-outs of the heat-spreader.
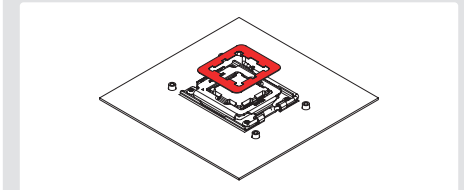
Make sure that the inner opening of the guard is correctly aligned with the outer edges of the heat-spreader:

✓

✗

Apply 5 dots; 4 small dots with ~2mm diameter near the corners plus 1 dot with 3-4mm diameter in the centre:

AM4   AM5

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

4   Fastening the heatsink to the CPU

Please refer to step 6 of the Intel installation manual.

5   Fan setup

Please refer to step 7 of the Intel installation manual.

! 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.

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22 PAP

NM-ISW1

### Shim washers for improving contact quality and performance on LGA1700

Adding 1mm shim washers underneath the LGA1700 socket's ILM (Independent Loading Mechanism) will lower the pressure that the ILM exerts onto the CPU and thereby reduce the deformation that occurs due to this pressure. With the CPU being deformed less, the contact between the CPU and low or medium convexity heatsinks will improve, which can yield typical temperature improvements of around 2-3°C with fresh, unused CPUs. CPUs that have been used with full ILM pressure before will see little to no improvement. For further information, please visit www.noctua.at/lga1700-ilm-mod

Caution: Using shim washers or so-called contact frames in order to reduce ILM pressure on LGA1700 sockets has become common practice. It is generally safe if you follow the procedure detailed below and there is no indication of negative long-term effects. However, it must be noted that any such modification to the socket is entirely at the user's own risk. Noctua cannot be held responsible for any damage that may occur when or due to adding the supplied shim washers.

Please follow this procedure to install the NM-ISW1 washers:

1

Place the motherboard on a flat, antistatic surface. Open the socket, remove the plastic socket cover and insert the CPU (to protect the socket pins during the following steps), but do not close the socket.
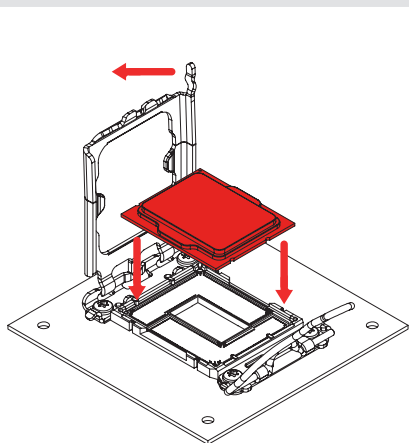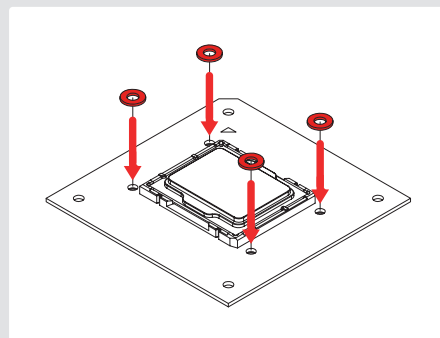

2

Remove the 4 screws from the ILM using the Torx® T20 screwdriver that comes with the cooler and take off the ILM.
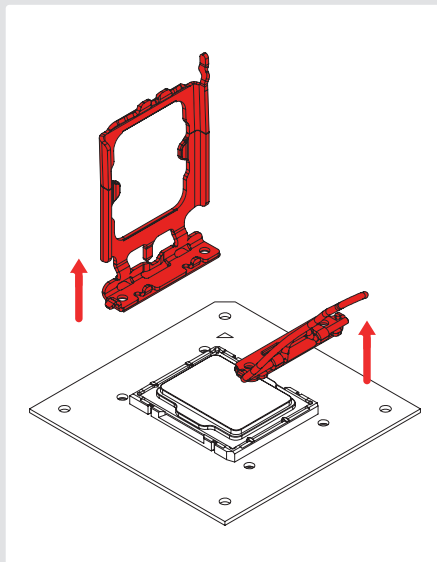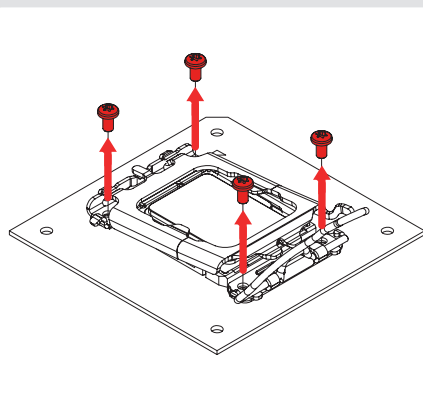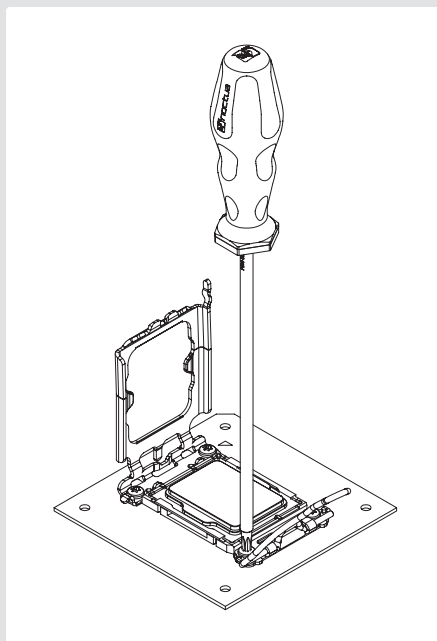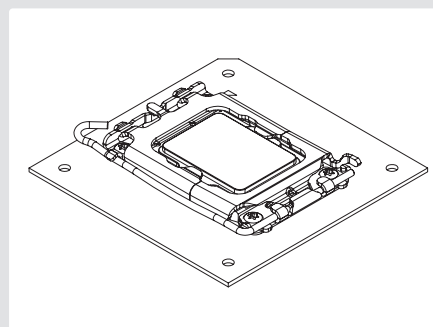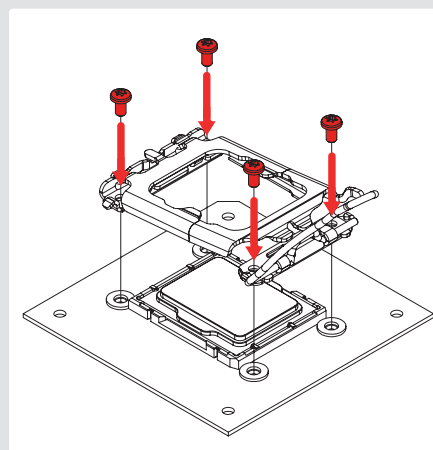

3

Place the 4 shim washers over the 4 mounting holes of the ILM.

4

Put the ILM back into place and secure it using the 4 original screws. Gently tighten the screws until they stop, but do not use excessive force (max. torque 0.6 Nm).

If the screws do not catch the threads easily, apply slight pressure onto the screws and first turn them counter-clockwise until you hear a clicking sound as the threads fall into place, then start turning clockwise. If necessary, reach behind the motherboard and apply counterpressure to the backplate to help the screws catch the thread. If the screws still don't catch the thread, please contact us at support@noctua.at so that we can supply you with longer screws.