



Noctua aims at establishing a new level of quality and performance "Designed in Austria" through paying attention to the users' needs in a market burdened with all kinds of frills and furbelows and providing sound-optimised premium components, which serve their purpose in a smart, precise and reliable manner.

Noctua arises from a cooperation between the Austrian Rascom Computerdistribution Ges.m.b.H and the Taiwanese Kolink International Corporation and entertains a development partnership with the Austrian Institute of Heat Transmission and Fan Technology (Österreichisches Institut für Wärmeübertragung und Ventilatorentechnik, ÖIWW).

## Congratulations on your new Noctua NH-U!

You have chosen a premium-quality cooler that offers superior performance both with super silent and high-performance fans. In order to achieve the best cooling-results possible, please follow the instructions given in this manual.

Chapter one gives you a detailed step-by-step tutorial on how to install the Noctua NH-U on various socket-types.

Chapter two contains information on warranty and support in case you have any further questions or suggestions.

Your **Noctua-Team**.

## Installation Manual

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### 1st Step

## Checking box contents

Please first check the box contents according to the following lists and illustrations.

The following items are included in delivery:

- Mounting hardware for Socket 478, LGA 775 and K8 (see following points)
- 1 tube of high-grade thermal paste
- 2 steel-clips for fan-mounting
- 2 anti-vibration strips

To allow for easier identification, all screws and parts that differ for each socket-type have been given a reference number (PNr for parts and SNr for screws). These are demonstrated in the following illustrations. The required mounting hardware for each socket-type is listed below.

### Screws:



8 short screws [SNr1]  
*Illustration 1*



3 x 2 stepped spring screws  
*Illustration 2*

### Mounting Parts:



Backplates  
*Illustration 3*



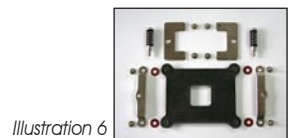
Fastening brackets  
*Illustration 4*



Mounting bars (socket 478 and LGA 775 only)  
*Illustration 5*

### Mounting hardware for socket 478:

- 1 S478-backplate (black, square with a square cut-out in the center) [PNr.1]
- 2 short, low mounting bars (fitting the backplane) [PNr.4]
- 8 short screws [SNr1]
- 4 washers
- 2 fastening brackets without bulge [PNr6]
- 2 long, silver-coloured springscrews [SNr.3]
- 2 pressure springs



*Illustration 6*

## Mounting hardware for LGA 775:

- 1 LGA-backplate (black, x-shaped without cut-out) [PNr.2]
- 2 long, raised mounting bars (fitting the backplane) [PNr.5]
- 8 short screws [SNr.1]
- 4 washers
- 2 fastening brackets without bulge [PNr.6]
- 2 mid-sized, silver-coloured springscrews [SNr.2]
- 2 pressure springs



Illustration 7

## Mounting hardware for K8:

- 1 K8-backplate (silver-coloured, hexagonal with square cut-out in the center) [PNr.3]
- 2 fastening brackets with bulge [PNr.7]
- 4 short screws [SNr.1]
- 2 long, black springscrews [SNr.4]
- 2 pressure springs

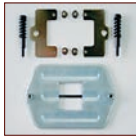


Illustration 8

## 2nd Step

### Removing the mainboard and retention module

In case you want to use the NH-U on an assembled system, you first have to remove the mainboard from the case as the cooler has to be screwed together with the backplate on the back side of the mainboard.

If your mainboard uses a retention module for CPU cooler installation (see illustration 9), you have to remove it first. Depending on the type of retention module, it is attached using either screws or plastic pins with bulbous ends on the back side of the mainboard, which have to be compressed to

loosen the module. Should you experience any difficulties, please consult your mainboard's manual. If your previous CPU cooler is attached using a different mounting mechanism, please remove it according to its manual.

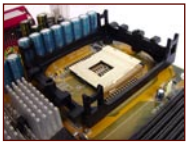


Illustration 9

## 3rd Step

### Attaching the backplate on the back side of the mainboard

#### a) Socket 478 and LGA 775

Place the backplate [Socket 478: PNr.1, LGA 775: PNr.2] on the back side of the mainboard, aligning the backplate's screw sockets with the mainboard's screwholes.

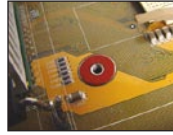
**Caution:** The insulated side of the socket 478 backplate [PNr.1] and the rubber foam square of the LGA backplate [PNr.2] have to face the mainboard!

Now screw the mounting bars [socket 478: PNr.4, LGA 775: PNr.5] to the backplate [socket 478: PNr.1, LGA 775: PNr.2], using small screws [SNr.1] and washers as shown in illustration 10 (with a socket 478).



**Caution:** Make sure that the straight sides of the the mounting bars face the socket and the bulgings are pointing outwards as shown in illustration 10!

Illustration 10



**Caution:** Don't forget to put 4 washers between the mainboard and the mounting bars to avoid damage to the mainboard.

Illustration 11

#### b) AMD K8:

Place the K8 backplate [PNr.3] on the back side of the mainboard, so that the backplate's screw sockets stick out through the mainboard's screw-holes.

**Caution:** As the fastening brackets [PNr.7] are screwed directly to the backplate on K8 mainboards, no mounting bars are required.

## 4th Step

### Attaching the fastening brackets to the heat-sink

Tightly screw the fastening brackets [socket 478 & LGA 775: PNr.6, K8: PNr.7] to the copper base of the heatsink using 4 short screws [SNr.1] as shown in illustration 12 (with socket 478 brackets):



Illustration 12

## 5th Step

### Applying thermal paste

If there are traces of thermal paste or thermal pads on your CPU, please clean them off first.

Spread a thin coating of the supplied thermal paste on the CPU.

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

## 6th Step

### Attaching the heatsink to the cpu

**Caution:** Peel off the protection film at the bottom side of the heatsink first!

Place the heatsink on the CPU, so that the mounting holes of the fastening brackets [socket 478 & LGA 775: PNr.6, K8: PNr.7] screwed to the base of the cooler align with those of the mounting bars [socket 478: PNr.4, LGA 775: PNr.5] (socket 478 & LGA 775) or those of the mainboard and the backplate [K8: PNr.3] (K8).

Now screw the fastening brackets [socket 478 & LGA 775: PNr.6, K8: PNr.7] to the mounting bars [socket 478: PNr.4, LGA 775: PNr.5] (socket 478 & LGA 775) or the backplate [K8: PNr.3] (K8), employing the pressure springs and the respective screws [Socket 478: SNr.3, LGA 775: SNr.2; K8: SNr.4] as shown in illustration 13 (with a socket 478 mainboard):



Illustration 13

#### 8th Step

### Attaching the fan

First stick the 2 anti-vibration strips onto the lower edges of the fan that are in direct contact with the heatsink to dampen vibrations.

Then attach the fan onto the heatsink using the steel clips, placing it so that it blows onto the heatsink. Depending on the socket orientation, the fan should either blow towards the rear side of the case or the power supply in accordance with the airflow within the case.

Connect the fan to the mainboard, power supply or fan controller as recommended by the manufacturer.



Illustration 14



Illustration 15

Now, your Noctua NH-U  
is ready for use –

welcome to a new world  
of power and silence!

### Support

For all enquiries concerning your Noctua NH-U cooler, both your retailer and the international Noctua support team at [support@noctua.at](mailto:support@noctua.at) are at your service.

Please also note the FAQ section on our homepage [www.noctua.at](http://www.noctua.at), where we elaborate on questions that frequently arise in connection with our products.

### Warranty Information

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 dependability and convenience by offering a warranty period of up to 60 months and direct, fast and straightforward RMA service.

In addition to the implied warranty, your Noctua NH-U cooler has a **3 years manufacturer's guarantee** as well as an option to **extend warranty up to 5 years at no additional cost** by joining the Noctua Extended Warranty Program. To participate, free registration is required at [www.noctua.at](http://www.noctua.at).

In case of warranty, you can either request RMA at your retailer or use our **Direct RMA Service**. For further information, please consult [www.noctua.at](http://www.noctua.at).