NOCTUA NF-A4x10 24V PWM INSTALLATION MANUAL



Dear customer,

Congratulations on choosing the Noctua NF-A4x10 24V PWM.

We at Noctua always strive to achieve superior quiet cooling performance regardless of whether it's a big 200mm fan or a small 40mm one. That's why the NF-A4x10 24V PWM sports many of the features and advanced aerodynamic design measures of our awardwinning larger models, making it perhaps the most thoroughly optimised 40mm fan on the market.

Each Noctua fan is double-checked for flawless operation by our quality control team before it leaves the factory 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 NF-A4x10 24V PWM!

Yours sincerely,

Roland Mossig, Noctua CEO

This document includes some instructions for installing, running and cleaning your NF-A4x10 24V PWM.

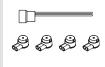
Should you encounter any difficulties, please check the FAQs on our website (faqs.noctua.at) and don't hesitate to contact our support team at support@noctua.at.

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

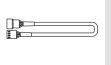
Included mounting parts:







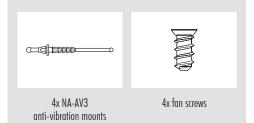
OmniJoin™ adaptor set





NA-EC1 30cm extension cable

NA-RC8 Low-Noise Adaptor (L.N.A.)



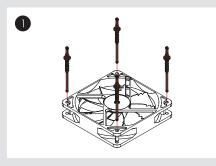
1 Installation

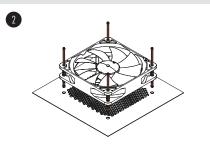
If you replace an existing 40mm fan with the NF-A4x10 24V PWM in devices such as 3D printers, it is usually best to use the screws (or other mounting mechanism) used for the original fan.

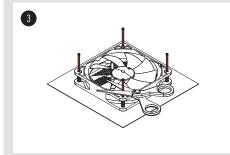
<u>Caution</u>: Being a 24V fan, the NF-A4x10 24V cannot be run at 12V and requires a starting voltage of at least 17V. It is therefore not suitable for standard PC applications.

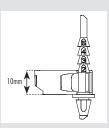
For installing the fan using the NA-AV3 anti-vibration mounts, please first pull the F side through the fan's mounting holes until pawl 2 is all the way through the first hole.











<u>Caution:</u> Only pull pawl 2 through the first hole. Don't overstretch the mounts by pulling further pawls through!

Then pull the C side through the mounting holes of the case. If the long ends of the mounts are in the way, you can use scissors to cut them after installation. Note that this will then make them difficult to reinstall in the future.

2 Connection

The NF-A4x10 24V PWM comes with a 4-pin PWM fan connector for PWM based speed control. Please note that the fan can also be connected to standard 3-pin fan headers, though. When connected to 3-pin fan headers, the fan will run at full speed.

The included NA-AC9 adaptor cable allows the fan to be connected to the 2-pin JST XHP-2 2.5mm sockets used on many popular 3D printer models (e.g. Creality Ender 3 and CR-10, Anycubic Mega).

If you would like to connect the fan to other fan headers, please use the supplied $OmniJoin^{TM}$ adaptor set as described below.

The fan features a short 20cm primary cable in order to help you minimise cable clutter in typical applications. If you need a longer cable, please add the supplied 30cm extension (NA-EC1).

The NF-A4x10 24V PWM comes with a Low-Noise Adaptor (NA-RC8) that allows you to reduce the fan speed from 5000 to 4100rpm. You can either use the adaptor to set the fan to a fixed speed of 4100rpm (if speed control is deactivated) or to cap the maximum speed to 4100rpm during PWM speed control.

3 Using the OmniJoin™ adaptor set

The supplied OmniJoin™ adaptor set allows you to easily connect the NF-A4x10 24V PWM to proprietary fan headers.

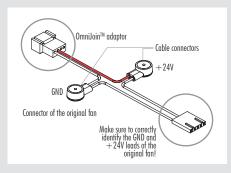
Please first identify the individual leads of the OmniJoinTM adaptor and the original fan. The OmniJoinTM adaptor uses black for ground (GND) and red for ± 24 V.

The black lead of the adaptor has to be matched with the original GND lead and the red adaptor cable with the original +24V lead. Many fan cables use the same colours as the OmniJoinTM adaptor, but please note that there is no guarantee for this, so make sure to correctly identify the GND and +24V leads of the original fan. Please refer to the manual that came with the device or contact the device manufacturer if in doubt.



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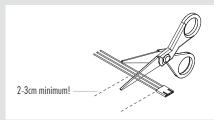




After you've identified the individual leads, please proceed with the following steps to install the OmniJoinTM adaptor:

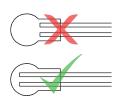
Step 1

Cut off the connector of the fan that was originally used in the device. Make sure not to cut the cable directly at the connector, there should be least 2-3cm of cable left:



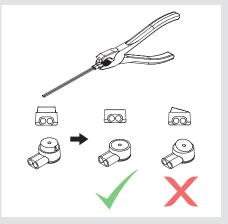
Step 2

Then take one of the supplied cable connectors and insert the GND lead of the original cable and the black lead of the OmniJoin adaptor into the two holes of the cable connector. Make sure that both leads are fully inserted and pushed all the way back.



Step 3

Then use flat nose pliers to push down the yellow button of the cable connector. Make sure that the button is not jammed and pushed all the way down. If the button is jammed, push it down from both sides of the cable connector using the flat nose pliers.



Repeat step 2 and 3 for the +24V lead.

After you've fixed the original fan's cable to the OmniJoin™ adaptor using the cable connectors, simply connect the NF-A4x10 24V PWM to the adaptor in order to use it in your device.

4 Cleaning and maintenance

In order to maintain maximum performance, please clean your fans regularly using a duster, slightly moist tissue or canned air. Please be careful not to use too much force in order to prevent any damage to the fan. Please don't use a vacuum cleaner as this may apply excessive force to the fan

In order to ensure flawless operation over many years of usage, the NF-A4x10 24V PWM's premium grade SSO2 bearing is fully sealed to prevent the entering of fine dust particles.

Please note that the fan is not designed to be taken apart by the user. Removing the impeller from the frame will break the sealing of the bearing and results in a loss of warranty.

! 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 NF-A4x10 24V PWM, please don't hesitate to contact our support team (support@noctua.at).

Please also consult the FAQ section on our website: $\underline{faqs.noctua.at}$

