Dear customer,

Thank you very much for choosing the Noctua NF-A14x25 G2 PWM Sx2-PP.

The NF-A14x25 G2 PWM Sx2-PP is a set of two NF-A14x25 G2 PWM square-frame 140mm fans for push-pull operation such as on water cooling radiators.

When two fans operate in a push-pull configuration running at the exact same speed, their acoustic interaction can lead to undesirable harmonics phenomena such as intermittent vibrations or periodic humming. Therefore, the two NF-A14x25 G2 PWM fans contained in the Sx2-PP set are slightly offset in speed ( $\pm$ /-  $\sim$ 25rpm) in order to ensure optimal acoustics in push-pull configurations.

Enjoy your NF-A14x25 G2 PWM Sx2-PP fans!

Yours sincerely,

Roland Mossig, Noctua CEO

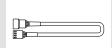
This document includes some instructions for installing, running and cleaning your NF-A14x25 G2 PWM Sx2-PP

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  $\underline{support@noctua.at}$ .

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

## Included mounting parts:

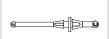




NA-YC1 4-pin PWM splitter cable

2x NA-EC1 30cm extension cables







8x NA-AV2 anti-vibration mounts





8x NA-AVP1-LR load-relief anti-vibration pads (pre-installed)

2x NA-AVG2-LR anti-vibration aasket



8x fan screws

#### 1 Installation

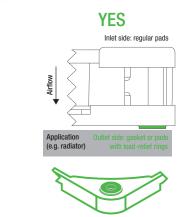
<u>Caution:</u> Please remove the protective paper from the inside of the fan frames before use.

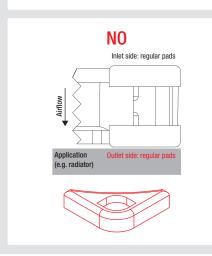
For installing your NF-A14x25 G2 PWM fans on a CPU heatsink or watercooling radiator, please use the fan mounting mechanism supplied with said product (fan clips, screws, etc.).

Caution: The NF-A14x25 G2 is a high-precision device with extremely strict tolerances. Therefore, it is critical to avoid excessive forces acting onto the frame when installing the fan on water cooling radiators:

On the outlet side of the fan, only use anti-vibration pads and gaskets with rings around the mounting hole when installing the fan with the outlet side facing the radiator ("push" orientation). These rings reduce the load onto the frame significantly.

Do not use pads or gaskets without load-relief rings on the outlet side of the fan in "push" configurations! On the inlet side, both types can be used.





Caution: Do not overtighten radiator screws! The total compressive load on all 4 screws must not exceed 30kg (equivalent to  $\sim$  0.15 - 0.25Nm torque with typical M3 or UNC 6-32 screws). Be extra careful with M4 or fine threads as they can produce higher compressive load with lower torque.

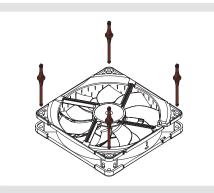


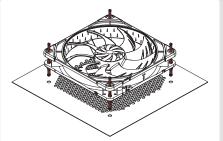
7.5kg max. compressive load per screw (30kg total)

When installing the NF-A14x25 G2 PWM as a case fan, you can either use the supplied mounting screws or NA-AV2 silicone anti-vibration mounts.

For installing the fan using the NA-AV2 mounts, please first pull the F side through the fan's mounting holes and 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.

If you prefer anti-vibration mounts with flat case-side ends, please purchase the optional NA-AV4 mounts.

# NOCTUA NF-A14x25 G2 PWM Sx2-PP INSTALLATION MANUAL



#### 2 Push-pull sequence

In most configurations, it makes no perceivable or measurable difference whether the slower (PPA) or the faster (PPB) fan is installed in the front (push) position.

For avoiding resonance phenomena that may occur due to the fans running at the exact same speed, the key point is that the fans are offset in speed, but it doesn't matter which fan is installed in the front (push) and which in the rear (pull) position.

Minute differences may, however, occur due to other factors such influx turbulence on the front fan (e.g. due to grills or perforated sheets), so please feel free to experiment with changing the sequence of the fans.

#### 3 Connection

The NF-A14x25 G2 PWM comes with a 4-pin PWM fan connector for fully automatic speed control via your motherboard's 4-pin PWM fan headers. Please note that the fan can also be connected to 3-pin fan headers though. When connected to 3-pin fan headers, the NF-A14x25 G2 PWM will run at full speed (unless the motherboard supports voltage based speed control).

If you're using multiple NF-A14x25 G2 PWM fans, you can use the supplied splitter cable (NA-YC1) to connect several fans to one PWM fan header. This way, your motherboard will set all the connected fans to run at the same speed.

The NF-A14x25 G2 PWM 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-A14x25 G2 PWM comes with a Low-Noise Adaptor (NA-RC16) that allows you to reduce the fan speed from 1500 to 1250rpm. You can either use the adaptor to set the fan to a fixed speed of 1250rpm (if speed control is deactivated) or to cap the maximum speed to 1250rpm during PWM speed control.

#### 4 Cleaning and maintenance

Fans inside computer cases tend to accumulate dust over longer periods of usage. 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-A14x25 G2 PWM 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-A14x25 G2 PWM Sx2-PP fan set, please don't hesitate to contact our support team (support@noctua.at).

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