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› NZXT F280 RGB Core Single-Frame Fan Unit User Manual

NZXT RF-U28HF-W1

NZXT F280 RGB Core Single-Frame Fan Unit User Manual

Model: RF-U28HF-W1

INTRODUCTION

The NZXT F280 RGB Core is a 280mm single-frame fan unit designed to provide efficient cooling and vibrant RGB lighting for your PC. This unit features two 140mm RGB fans integrated into a single frame, simplifying installation and cable management. It offers speed and lighting control, high static pressure and airflow, and fluid dynamic bearings for quiet and durable operation. Each fan is equipped with 8 individually addressable RGB LEDs for personalized lighting effects.

SAFETY INFORMATION

- Ensure power is disconnected from your PC before installation or maintenance.
- Handle components with care to avoid damage.
- Keep out of reach of children.
- Do not expose the unit to moisture or extreme temperatures.
- Only use the provided cables and connectors.

PACKAGE CONTENTS

Verify that all components are present in your package:

- NZXT F280 RGB Core Single-Frame Fan Unit
- Included splitter cable for 5V aRGB header connection

SETUP AND INSTALLATION

The NZXT F280 RGB Core features an all-in-one design for simplified installation and cable management.

1. **Prepare your PC:** Power off your computer and unplug it from the wall outlet. Open your PC case to access the fan mounting locations.
2. **Mount the Fan Unit:** Position the NZXT F280 RGB Core fan unit in your desired location (e.g., front, top, or bottom of the

case, or on a radiator). Secure the unit using appropriate screws. The single-frame design means fewer screws are needed compared to individual fans.

3. **Connect Power and Control:** The fan unit has a single cable for both power and RGB control. You have two primary options for connectivity:

Option 1: Connect to an NZXT Controller (Sold Separately)

For full control over lighting and fan speed via NZXT CAM software, connect the fan unit's cable directly to an available port on your NZXT controller. This method provides the most comprehensive customization.

Option 2: Connect to Motherboard 5V aRGB Header

If you do not have an NZXT controller, use the included splitter cable to connect the fan unit to your motherboard's 5V addressable RGB (aRGB) header. This allows for basic RGB control through your motherboard's software. Ensure your motherboard has a 3-pin 5V aRGB header (not a 4-pin 12V RGB header).

4. **Cable Management:** Route the cables neatly to ensure proper airflow and a clean build.
5. **Close PC Case:** Once all connections are secure, close your PC case and reconnect power.



ALL-IN-ONE DESIGN

Single-frame unit with integrated fans streamlines installation, setup, and lighting control.

Image: The NZXT F280 RGB Core fan unit showcasing its integrated, all-in-one design for simplified installation.



VERSATILE CONNECTIVITY

Connect to an NZXT controller (sold separately) for CAM or use the splitter for 5V aRGB motherboard connection.

Image: The NZXT F280 RGB Core fan unit alongside its included splitter cable, illustrating versatile connectivity options.

OPERATING THE FAN UNIT

The NZXT F280 RGB Core fan unit offers control over both fan speed and RGB lighting.

Fan Speed Control (PWM)

The fan speed can be dynamically adjusted based on PC temperatures for optimal efficiency. This requires a PWM connection to either an NZXT controller or a compatible motherboard header. You can configure fan curves and profiles using the NZXT CAM software (if connected to an NZXT controller) or your motherboard's fan control software.



PWM CONTROL

Dynamically adjusts fan speeds based on PC temperatures for optimal efficiency*.

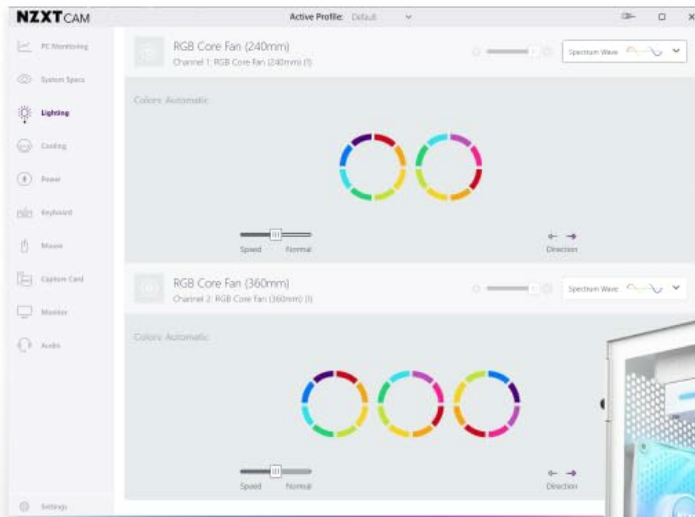
*Requires PWM connection to motherboard or controller (sold separately)

Image: A visual representation of PWM control, indicating dynamic adjustment of fan speeds based on PC temperatures.

RGB Lighting Control

The NZXT F280 RGB Core features 8 individually addressable RGB LEDs per fan hub, shining through semi-translucent blades. Lighting effects can be personalized and synchronized with other NZXT products.

- **Using NZXT CAM Software:** If connected to an NZXT controller, download and install the NZXT CAM software. This software provides extensive customization options for lighting effects, colors, and synchronization across your NZXT ecosystem.
- **Using Motherboard aRGB Software:** If connected to your motherboard's 5V aRGB header, use your motherboard's proprietary RGB control software to manage the lighting effects.



POWERED BY
NZXTCAM

DO MORE WITH CAM

Control fan speeds, personalize lighting effects, and sync with other NZXT products*.

*Requires an NZXT controller or NZXT motherboard, each sold separately.

Image: The NZXT CAM software interface displayed next to a PC case, demonstrating its capability to control fan speeds and personalize lighting effects.

MAINTENANCE

Regular maintenance helps ensure optimal performance and longevity of your fan unit.

- **Cleaning:** Periodically clean the fan blades and frame to prevent dust buildup, which can impede airflow and increase noise. Use compressed air or a soft, dry cloth. Ensure the PC is powered off and unplugged before cleaning.
- **Inspection:** Occasionally inspect cables for any signs of wear or damage. Ensure all connections remain secure.

TROUBLESHOOTING

If you encounter issues with your NZXT F280 RGB Core fan unit, refer to the following common solutions:

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Fans not spinning	No power, incorrect connection, or Zero RPM Mode active.	Check all power connections. Ensure the fan unit is properly connected to the NZXT controller or motherboard. If using NZXT CAM, check fan profiles for Zero RPM Mode settings.
RGB lighting not working	Incorrect RGB connection, software issue, or incompatible header.	Verify the RGB cable is securely connected to the NZXT controller or a 5V aRGB motherboard header. Ensure you are using the correct software (NZXT CAM or motherboard's RGB software). Confirm your motherboard has a 5V aRGB header, not a 12V RGB header.
Fans are noisy	High fan speed, dust buildup, or loose mounting.	Adjust fan speed settings in NZXT CAM or motherboard software. Clean fan blades and frame. Ensure the fan unit is securely mounted and screws are tightened appropriately.
Poor cooling performance	Insufficient fan speed, restricted airflow, or dust buildup.	Increase fan speed settings. Ensure there are no obstructions to airflow within the PC case. Clean the fan unit and any associated filters.

SPECIFICATIONS

Key technical specifications for the NZXT F280 RGB Core fan unit:

Feature	Detail
Model Number	RF-U28HF-W1
Product Dimensions	12.68 x 5.83 x 1.26 inches
Item Weight	15.1 ounces
Fan Size	2 x 140mm (integrated into 280mm frame)
Maximum Rotational Speed	2000 RPM
Noise Level	34.5 dB (Maximum)
Power Connector Type	4-Pin (PWM)
Voltage	12 Volts
Wattage	2.21 watts
Bearing Type	Fluid Dynamic Bearings
Lifespan	60,000 hours
RGB LEDs	8 aRGB LEDs per fan hub
Material	Plastic
Compatible Devices	Desktop PCs

WARRANTY INFORMATION

NZXT products are backed by a manufacturer's warranty. For specific details regarding the warranty period and terms for your NZXT F280 RGB Core fan unit, please refer to the warranty card included with your product or visit the official NZXT website.

SUPPORT

For further assistance, technical support, or to download the latest version of NZXT CAM software, please visit the official NZXT support website:

www.nzxt.com/support

You can also find FAQs and community forums on the NZXT website for additional help.