Fractal Design FD-FAN-DYN-X2-GP14-PWM-BK

Fractal Design Dynamic X2 GP-14 PWM Computer Fan User Manual

Model: FD-FAN-DYN-X2-GP14-PWM-BK

1. INTRODUCTION

The Fractal Design Dynamic X2 GP-14 PWM is a high-performance computer fan engineered for silent operation and efficient airflow. Featuring advanced FDB-Bearings, Trip Wire technology, and aerodynamically shaped struts, this fan is designed to provide superior cooling while maintaining a low noise profile. It is ideal for various PC cooling applications, including CPU heatsinks, radiators, and case ventilation.

2. KEY FEATURES

- **Long-lasting dependability:** High-grade LLS bearing with 100,000-hour MTBF ensures extended operational life.

- **Counter-balanced magnet:** Reduces axial tension on the bearing, leading to less wear over time and improved durability.

- **Optimized fan geometry:** Balances airflow and static pressure for excellent performance in diverse usage scenarios.

- **Aerodynamic stator with embedded wiring:** Minimizes noise and unwanted turbulence for quieter operation.

- **Stator struts sit on a wide angle to the trailing edge of the blades:** Contributes to a lower and smoother noise profile.

- **Trip Wire technology:** Introduces a micro-turbulent layer that enhances blade efficiency and provides a more efficient and quiet fan environment.

Image 1: Top view of the Fractal Design Dynamic X2 GP-14 PWM fan, showcasing its blade design and central hub.

3. Setup and Installation

3.1. Package Contents

- 1 x Fractal Design Dynamic X2 GP-14 PWM Computer Fan
- 4 x Mounting Screws

3.2. Installation Steps

1. **Prepare your system:** Ensure your computer is powered off and unplugged from the wall outlet. Open your computer case to access the fan mounting locations.

2. **Identify mounting location:** Determine where you want to install the fan (e.g., front intake, rear exhaust, CPU cooler, radiator).

3. **Position the fan:** Place the fan in the desired mounting position, ensuring the airflow direction is correct for

your system's cooling strategy. Arrows on the fan frame typically indicate airflow direction and blade rotation.

4. **Secure the fan:** Use the provided mounting screws to secure the fan to the case or radiator. Tighten screws evenly to prevent warping.

5. **Connect the power cable:** Connect the fan's 4-pin PWM connector to an available 4-pin fan header on your motherboard. Ensure the connector is fully seated.

6. **Cable management:** Route the fan cable neatly to avoid obstructing airflow or other components.

7. **Close case and power on:** Close your computer case, plug in the power cable, and power on your system. Verify the fan is spinning correctly.

Image 2: Side view of the Fractal Design Dynamic X2 GP-14 PWM fan, showing its frame and mounting holes.

4. OPERATION

The Dynamic X2 GP-14 PWM fan utilizes Pulse Width Modulation (PWM) technology, allowing your motherboard or fan controller to precisely control its speed. This enables dynamic adjustment of fan speed based on system temperature, optimizing cooling performance and noise levels. At lower temperatures, the fan can operate at very

low RPMs for near-silent operation, while increasing speed as temperatures rise to maintain optimal cooling.

5. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your fan.

- **Dust Cleaning:** Periodically clean dust from the fan blades and frame using compressed air or a soft brush. Ensure the fan is powered off before cleaning.
- **Inspection:** Check for any obstructions around the fan blades or unusual noises during operation.

Image 3: Close-up view of the Fractal Design Dynamic X2 GP-14 PWM fan's hub, highlighting the Fractal Design logo and bearing details.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution

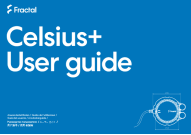| Problem	Possible Cause	Solution
Fan not spinning	Loose power connection; Incorrect fan header; Fan failure	Check 4-pin PWM connection; Ensure connected to a working fan header; Test fan on another header or system.
Excessive noise	Dust buildup; Loose mounting screws; Bearing issue; Obstruction	Clean fan blades; Tighten mounting screws; Ensure no cables or objects are hitting blades; If noise persists, fan may need replacement.
Poor airflow	Incorrect fan orientation; Dust buildup; Low RPM setting	Verify fan is oriented correctly for intake/exhaust; Clean fan blades; Adjust fan speed settings in BIOS/UEFI or fan control software.
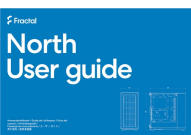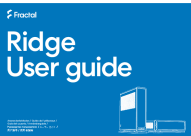
7. TECHNICAL SPECIFICATIONS

Specification	Value
Model Name	Dynamic X2 GP-14 PWM
Dimensions (LxWxH)	140 x 140 x 25 mm (5.51"L x 5.51"W x 0.98"H)
Maximum Rotational Speed	1700 RPM
Noise Level	33.7 dB
Power Connector Type	4-Pin PWM
Voltage	12 Volts
Wattage	1 watts
Bearing Type	LLS (Long Life Sleeve) Bearing
Material	Rubber (vibration damping corners)
Compatible Devices	Desktop Computers
Item Weight	7.2 ounces
UPC	843276101893
Manufacturer	Fractal Design

8. WARRANTY AND SUPPORT

This Fractal Design Dynamic X2 GP-14 PWM fan comes with a **3-year warranty**, active from the point of purchase. This warranty covers manufacturing defects and ensures reliable operation under normal use conditions.
For technical support, troubleshooting assistance, or warranty claims, please visit the official Fractal Design website or contact their customer service department. Keep your proof of purchase for warranty validation.

Related Documents - FD-FAN-DYN-X2-GP14-PWM-BK

Fractal Celsius+ User guide	[Fractal Celsius+ AIO Liquid Cooler User Guide](#) Comprehensive user guide for the Fractal Design Celsius+ series All-In-One (AIO) liquid CPU coolers, covering installation, specifications, fan curves, maintenance, troubleshooting, and warranty information.
DEFINE S2 VISION User Guide	[Fractal Design Define S2 Vision User Guide](#) A comprehensive user and builder's guide for the Fractal Design Define S2 Vision PC case, detailing accessory contents, installation steps, optional configurations, water cooling, and technical specifications for PC enthusiasts.
MESHIFY S2 User Guide	[Fractal Design Meshify S2 User Guide: Installation and Features](#) Comprehensive user guide for the Fractal Design Meshify S2 PC case, covering installation, accessories, optional steps, specifications, and support. Learn how to build your PC with this detailed guide.
DEFINE MINI C User Guide	[Fractal Design Define Mini C User Guide and Builder's Guide](#) Comprehensive user guide and builder's guide for the Fractal Design Define Mini C PC case, covering installation, accessories, optional steps, and specifications.
North User guide	[Fractal Design North PC Case User Guide: Specs & Build Instructions](#) Official user guide for the Fractal Design North ATX Airflow Mid Tower PC Gaming Case. Features include detailed specifications, component overview, and building instructions for PC enthusiasts. Learn about its Chalk White and Wood Oak variants, mesh side panels, and compatibility with ATX, mATX, and Mini-ITX motherboards.
Ridge User guide	[Fractal Design Ridge PC Case User Manual and Builder's Guide](#) Comprehensive guide for the Fractal Design Ridge PC case, covering specifications, assembly, configurations (air/water cooling, home theater), accessories, and support. Optimize your compact PC build.