ARCTIC AFACO-12000-GBA01

ARCTIC F12-120 mm Standard Case Fan User Manual

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your ARCTIC F12-120 mm Standard Case Fan. Designed for optimal airflow and quiet operation, this fan is suitable for various computer case cooling applications.

Front view of the ARCTIC F12-120 mm Standard Case Fan, showcasing its nine white fan blades and central ARCTIC logo.

Key Features:

- **Innovative Blade Design:** Fan blades are engineered to improve airflow and facilitate efficient ventilation, minimizing noise while delivering desired airflow and pressure.
- **Two-Way Installation:** Capable of blowing warm air out of the case or drawing cool air into your case.
- **Long Service Life:** Features a Fluid Dynamic Bearing with an oil capsule to prevent lubricant leakage, ensuring quiet operation and extended lifespan.
- **Technical Data:** Fan speed: 1350 RPM, Airflow: 53 CFM/90.1 m³/h (@ 1350 RPM), Noise Level: 0.3 Sone (@ 1350 RPM), Connector: 3-pin.

SETUP AND INSTALLATION

The ARCTIC F12 fan is designed for straightforward installation in standard computer cases. It supports both push and pull configurations to optimize your system's airflow.

Installation Steps:

1. Identify the desired mounting location within your computer case (e.g., front, rear, top, bottom).
2. Determine the desired airflow direction. The fan can be configured to either draw cool air into the case (intake) or expel warm air out of the case (exhaust).
3. Align the fan with the screw holes on your case.
4. Secure the fan using the provided mounting screws. Ensure not to overtighten.
5. Connect the fan's 3-pin connector to an available 3-pin fan header on your motherboard or a fan controller.
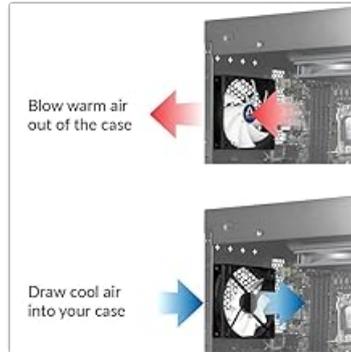

Diagram illustrating the two-way installation options: blowing warm air out (exhaust) or drawing cool air in (intake).

OPERATING INSTRUCTIONS

The ARCTIC F12 fan operates at a fixed speed when connected to a standard 3-pin fan header. Its design prioritizes quiet operation while maintaining effective airflow.
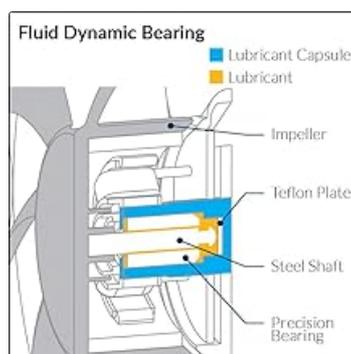
Fan Operation:

- Upon system power-on, the fan will begin operating at its rated speed of 1350 RPM.
- The Fluid Dynamic Bearing ensures a quiet operation with a noise level of 0.3 Sone.
- For systems requiring adjustable fan speeds, a compatible fan controller or motherboard with voltage control for 3-pin fans is necessary (not included).

MAINTENANCE

The ARCTIC F12 fan is designed for long-term, maintenance-free operation thanks to its Fluid Dynamic Bearing.

General Care:

- Periodically inspect the fan blades for dust accumulation. Use compressed air or a soft brush to gently clean the blades and frame.
- Ensure no cables or obstructions interfere with the fan's rotation.
- The Fluid Dynamic Bearing is self-lubricating and does not require additional oiling.

Detailed diagram illustrating the Fluid Dynamic Bearing with its lubricant capsule, steel shaft, and precision bearing, contributing to long service life.

TROUBLESHOOTING

If you encounter any issues with your ARCTIC F12 fan, please refer to the following common troubleshooting steps:

- **Fan Not Spinning:**
  - Check if the 3-pin connector is securely plugged into the motherboard or fan controller.
  - Ensure your system is powered on and receiving power.
  - Inspect for any physical obstructions preventing the blades from rotating.

- **Excessive Noise:**
  - Verify that the fan is securely mounted and not vibrating against the case.
  - Clean any dust or debris from the fan blades.
  - Ensure no cables are touching the rotating blades.

- **Poor Cooling Performance:**
  - Confirm the fan's airflow direction is appropriate for its location (intake for cool air, exhaust for warm air).
  - Check for dust buildup on any filters or vents in the case that might restrict airflow.

If problems persist after attempting these steps, please contact ARCTIC customer support for further assistance.

SPECIFICATIONS

Detailed technical specifications for the ARCTIC F12-120 mm Standard Case Fan:

Feature	Value
Brand	ARCTIC
Model Number	AFACO-12000-GBA01
Fan Size	120 mm
Fan Speed	1350 RPM
Airflow Capacity	53 CFM / 90.1 m³/h
Noise Level	0.3 Sones
Power Connector Type	3-Pin
Voltage	12 Volts
Wattage	3 watts
Cooling Method	Fan
Compatible Devices	Desktop
Material	Plastic

Feature	Value
Item Weight	3.77 ounces
Product Dimensions (LxWxH)	4.7 x 1 x 4.7 inches

Back of the product packaging, detailing specifications and illustrating airflow directions.

WARRANTY AND SUPPORT

ARCTIC stands behind the quality of its products.

Warranty Information:

- The ARCTIC F12-120 mm Standard Case Fan comes with a **6-year limited warranty**. Please retain your proof of purchase for warranty claims.
- The Fluid Dynamic Bearing is designed for a long service life, contributing to the product's durability.

Product packaging highlighting the 6-year limited warranty.

Customer Support:

For additional information, technical support, or to access the full product manual in various languages, please visit the official ARCTIC support pages:

- General Product Information: www.arctic.ac/f12
- Support Page (for F12 PWM PST models, relevant for general F12 support): support.arctic.ac/f12pwmps