ID-COOLING FROSTFLOW X 280

ID-COOLING FROSTFLOW X 280 CPU Liquid Cooler User Manual

Model: FROSTFLOW X 280

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your ID-COOLING FROSTFLOW X 280 CPU Liquid Cooler. Please read this guide thoroughly before proceeding with installation to ensure proper setup and optimal performance.
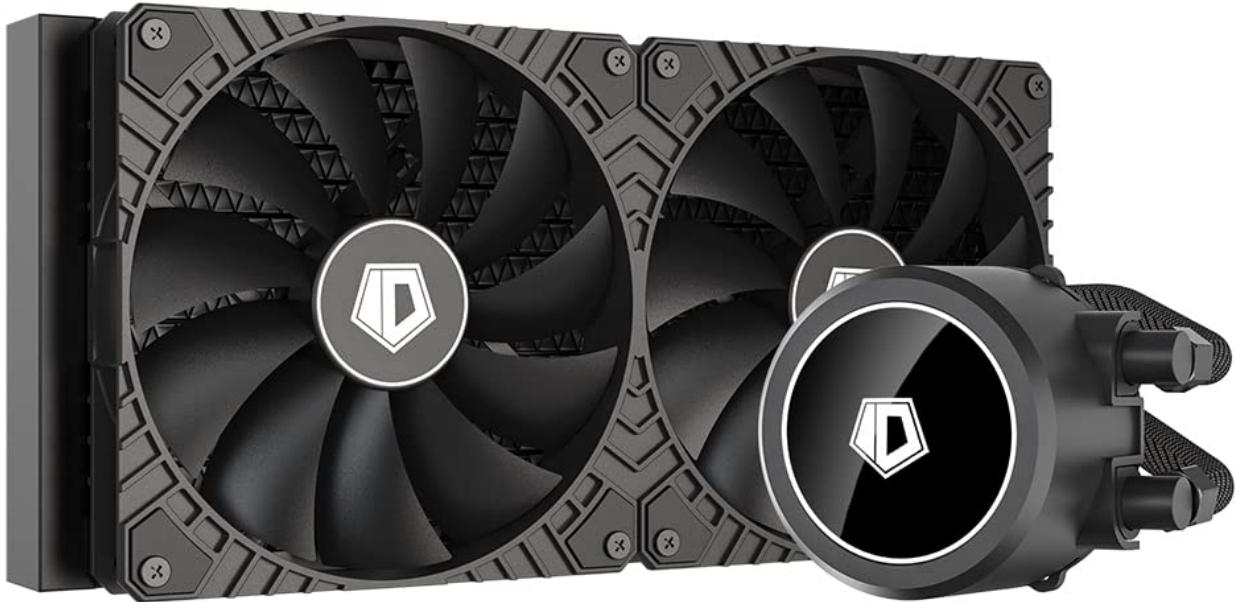
Image 1: The ID-COOLING FROSTFLOW X 280 CPU Liquid Cooler, showcasing the radiator, two 140mm fans, and the pump/cold plate unit.

2. PACKAGE CONTENTS

Verify that all components are present in the package before beginning installation:

- FROSTFLOW X 280 Radiator with Integrated Pump/Cold Plate
- 2x 140mm PWM Fans
- Mounting Hardware for Intel Sockets (LGA2066/2011/1151/1150/1155/1156/1200/1700)
- Mounting Hardware for AMD Sockets (AM4/AM5)
- Thermal Paste
- Fan Screws and Radiator Screws
- User Manual

3. KEY FEATURES

- **Enhanced Heat Dissipation:** Equipped with a 280mm radiator and two 140mm PWM fans for efficient CPU cooling.
- **White LED Lighting:** The pump features classic white LED lighting to complement your PC build.
- **PWM Fan Control:** 140mm PWM fans provide adjustable airflow for optimal cooling performance and noise management. Maximum Air Flow: 76.8CFM; Noise Level: 16.8~32.6dB(A).
- **Broad Compatibility:** Supports multiple Intel (LGA2066/2011/1151/1150/1155/1156/1200/1700) and AMD (AM4/AM5) sockets.
- **Low-Noise Operation:** Fans are equipped with 4 de-vibration rubber pads on both sides to minimize operational noise.

280MM RADIATOR

Better Heat Dissipation

Image 2: Detailed view of the 280mm radiator's fin structure, designed for efficient heat transfer.

LOW-NOISE OPERATION

Equipped with 4 de-vibration rubber on both fan side
to provide low-noise operation.
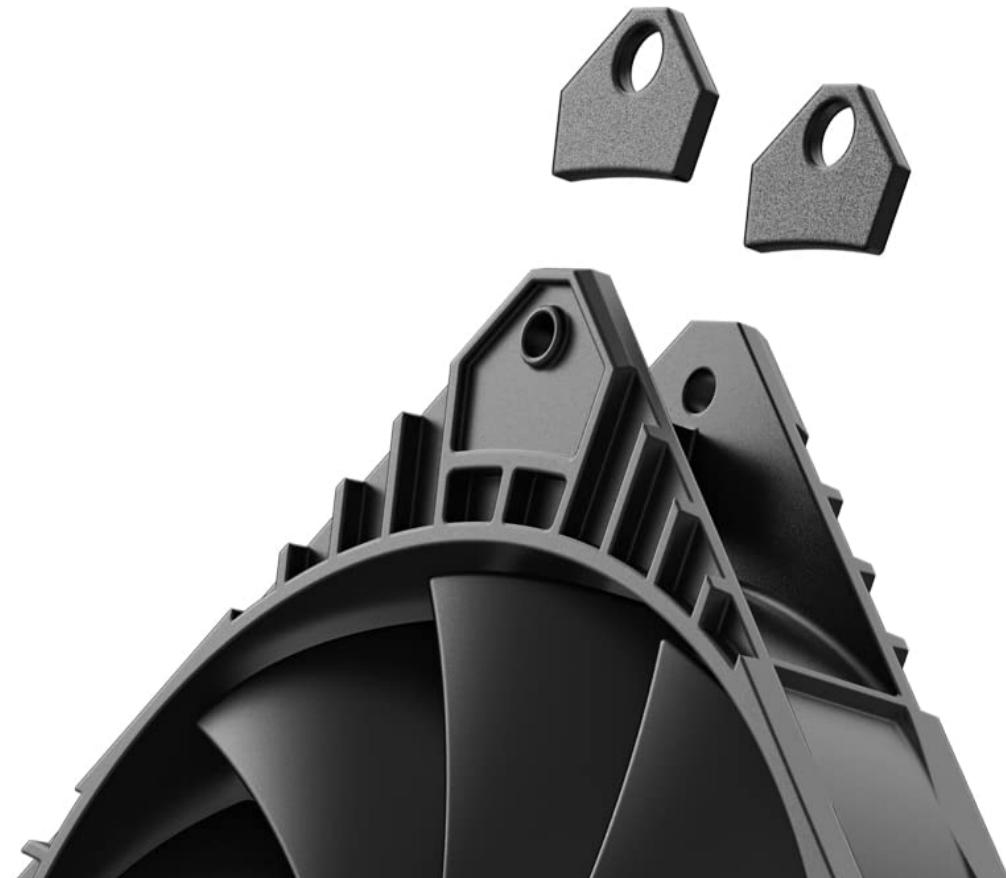
Image 3: A 140mm fan highlighting the integrated rubber pads at the corners, which reduce vibration and noise during operation.

4. CPU Socket Compatibility

The FROSTFLOW X 280 CPU Liquid Cooler is compatible with the following CPU sockets:

- **Intel:** LGA2066, LGA2011, LGA1151, LGA1150, LGA1155, LGA1156, LGA1200, LGA1700
- **AMD:** AM4, AM5

5. Installation Guide

This section provides a general overview of the installation process. Refer to the detailed graphical instructions included in your product packaging for specific steps for your CPU socket type.

General Installation Steps:

1. **Prepare Motherboard:** Install the appropriate backplate and standoffs for your CPU socket.
2. **Apply Thermal Paste:** Apply a thin, even layer of thermal paste to the CPU IHS (Integrated Heat Spreader).

3. **Mount Pump/Cold Plate:** Secure the pump/cold plate unit onto the CPU, ensuring even pressure.

4. **Install Fans on Radiator:** Attach the two 140mm PWM fans to the radiator using the provided screws. Ensure correct airflow direction (typically pushing air through the radiator).

5. **Mount Radiator:** Install the radiator assembly into your PC case in a suitable location (e.g., front, top, or side panel).

6. **Connect Cables:** Connect the pump power cable to the designated header on your motherboard (usually AIO_PUMP or CPU_FAN). Connect the fan cables to the CPU_FAN or other available fan headers, ensuring PWM control is enabled in your BIOS/UEFI.

Image 4: The ID-COOLING FROSTFLOW X 280 CPU Liquid Cooler professionally installed within a desktop computer case, demonstrating its integration with other components.

6. OPERATION

Once installed, the FROSTFLOW X 280 operates automatically. The PWM fans adjust their speed based on CPU temperature, as configured in your motherboard's BIOS/UEFI settings. The pump's white LED will illuminate upon system power-on.

Fan Control:

For optimal performance and noise levels, it is recommended to configure a custom fan curve in your motherboard's BIOS/UEFI. This allows the fan speed to increase with CPU temperature, providing efficient cooling when needed and quieter operation during lighter loads.

Image 5: An illustration demonstrating the airflow generated by a PWM fan, indicating how air is moved for cooling.

LED Lighting:

The pump features a static white LED illumination. This lighting is not addressable or customizable and will be active whenever the pump receives power.

Image 6: A close-up view of the pump unit, clearly showing the white LED lighting around the ID-COOLING logo.

7. MAINTENANCE

Regular maintenance helps ensure the longevity and performance of your liquid cooler.

- **Dust Removal:** Periodically clean the radiator fins and fan blades using compressed air to remove dust buildup. Dust can impede airflow and reduce cooling efficiency.
- **Inspect Tubing:** Check the tubing for any signs of kinks, leaks, or damage.
- **Pump Inspection:** Ensure the pump is operating quietly. Unusual noises may indicate an issue.

Caution: Do not attempt to open the pump or radiator, as this will void the warranty and may cause damage or leaks.

8. TROUBLESHOOTING

If you encounter issues with your FROSTFLOW X 280, refer to the following common solutions:

- **High CPU Temperatures:**

  - Ensure the pump is connected and running (check BIOS/UEFI for pump RPM).
  - Verify fans are spinning and correctly oriented for airflow.
  - Check thermal paste application; reapply if necessary.
  - Confirm the cold plate is making full contact with the CPU IHS.

- **Excessive Noise:**

  - Adjust fan speed curves in BIOS/UEFI to reduce RPM at lower temperatures.
  - Check for loose fan screws or cables interfering with fan blades.
  - If pump noise is excessive, ensure the radiator is mounted higher than the pump to prevent air bubbles from accumulating in the pump.

- **LED Not Lighting Up:**

  - Ensure the pump power cable is securely connected to the motherboard.
  - Check motherboard BIOS/UEFI settings for any pump-related power options.

9. TECHNICAL SPECIFICATIONS

| Feature	Specification
Model	FROSTFLOW X 280
Product Dimensions (Overall)	12.24 x 1.06 x 5.51 inches (approx. 311 x 27 x 140 mm)
Weight	2.2 Pounds (approx. 1 kg)
Radiator Size	280mm
Fan Size	140mm x 25mm
Fan Speed	800~1600 ±10% RPM (PWM Controlled)
Max. Air Flow	76.8 CFM
Noise Level	16.8~32.6 dB(A)
Power Connector Type	4-Pin (PWM)
Voltage	12 Volts
Wattage	3 Watts
Cooling Method	Liquid (Water)
Compatible Devices	Desktop Computers
Material	Polycarbonate (fans, pump housing)
Supported Sockets	Intel LGA2066/2011/1151/1150/1155/1156/1200/1700, AMD AM4/AM5
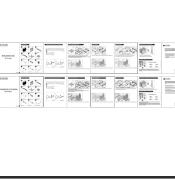
Image 7: A diagram illustrating the dimensions of the 140mm fan, showing its 140mm width and 25mm thickness.

10. WARRANTY AND SUPPORT

ID-COOLING products are designed for reliability and performance. For warranty information, please refer to the warranty card included with your product or visit the official ID-COOLING website. For technical support, troubleshooting assistance, or inquiries about replacement parts, please contact ID-COOLING customer service through their official channels.

Official Website: www.idcooling.com

Related Documents - FROSTFLOW X 280

	[ID-COOLING AIO CPU Cooler Installation Manual - Guide for Intel & AMD](#) Comprehensive installation guide for ID-COOLING All-In-One (AIO) CPU coolers. Covers component lists, mounting instructions for Intel LGA 1700/1200/115X/2066/2011 and AMD AM4/AM5 sockets, and RGB connection.
	[ID-COOLING FROSTFLOW X 280 Installation Manual](#) This document provides a comprehensive installation manual for the ID-COOLING FROSTFLOW X 280 CPU Water Cooler, detailing component lists and step-by-step installation guides for Intel and AMD platforms.
	[ID-COOLING AIO-DASH-V1 Installation Guide](#) Comprehensive installation guide for the ID-COOLING AIO-DASH-V1 CPU cooler, covering compatibility with Intel LGA1700, LGA1200/115X, LGA20XX, and AMD AM4/AM5 sockets. Includes detailed steps and component lists for a successful installation.
	[ID-COOLING XTS-V1 Installation Guide](#) This guide provides step-by-step instructions for installing the ID-COOLING XTS-V1 CPU cooler, covering Intel and AMD platforms.
	[ID-COOLING IS-XT-A1-X3A4D06-V2 CPU Cooler Installation Guide](#) Comprehensive installation guide for the ID-COOLING IS-XT-A1-X3A4D06-V2 CPU cooler, covering component lists, socket compatibility for Intel LGA1700, LGA1200/115X, and AMD AM4/AM5, step-by-step assembly instructions, and fan connection. Includes support contact information.
	[ID-COOLING SE-XT Series CPU Cooler Installation Guide](#) Installation guide for ID-COOLING SE-XT Series CPU coolers, detailing component identification, Intel and AMD socket installation steps, fan mounting, and ARGB connection. Includes support information and contact details.