ID-COOLING FX240 INF

ID-COOLING FX240 INF 240mm Liquid CPU Cooler Instruction Manual

Model: FX240 INF

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your ID-COOLING FX240 INF 240mm Liquid CPU Cooler. Please read this manual thoroughly before installation to ensure proper setup and optimal performance. This All-In-One (AIO) liquid cooler is designed to provide efficient thermal management for your CPU, featuring a 240mm radiator, two 120mm daisy-chained fans, and an ARGB infinity mirror pump.

Image 1.1: ID-COOLING FX240 INF 240mm Liquid CPU Cooler components.

2. Product Overview

2.1 Package Contents

Verify that all components are present in the package:

- 240mm Radiator with Integrated Pump
- 2x 120mm Cooling Fans
- Mounting Hardware for Intel Sockets (LGA1851/1700/1200/115X)
- Mounting Hardware for AMD Sockets (AM5/AM4)
- Thermal Paste Tube
- 7-pin Extension Cable for Fan/ARGB Connectivity

2.2 Key Features

- **Premium AIO Cooling:** Designed for gaming and high-performance computing systems with a TDP of 300W.

- **Powerful GEN 7 Pump:** Operates at 2900RPM±10% for efficient heat dissipation.
- **Upgraded Radiator:** Features 12 waterways and a high-density fin stack, increasing cooling surface by 37% for improved heat transfer and liquid volume.
- **Quiet 120mm Fans:** Two fans deliver stable performance with a maximum noise level of 27.2dB(A).
- **Infinity Mirror ARGB:** The pump head features an addressable RGB infinity mirror effect.
- **Simple Cable Management:** Fans utilize daisy-chain connectors and a 7-pin extension cable for streamlined wiring.
- **360° Rotatable Pump Cap:** Allows for multi-angle adjustments without repositioning the cold plate.

Image 2.1: The infinity mirror effect on the pump head.

Image 2.2: Diagram illustrating the GEN 7 water pump with 2900 RPM speed and 3-phase, 6-pole motor.

Image 2.3: Two 120mm cooling fans installed in a PC case.

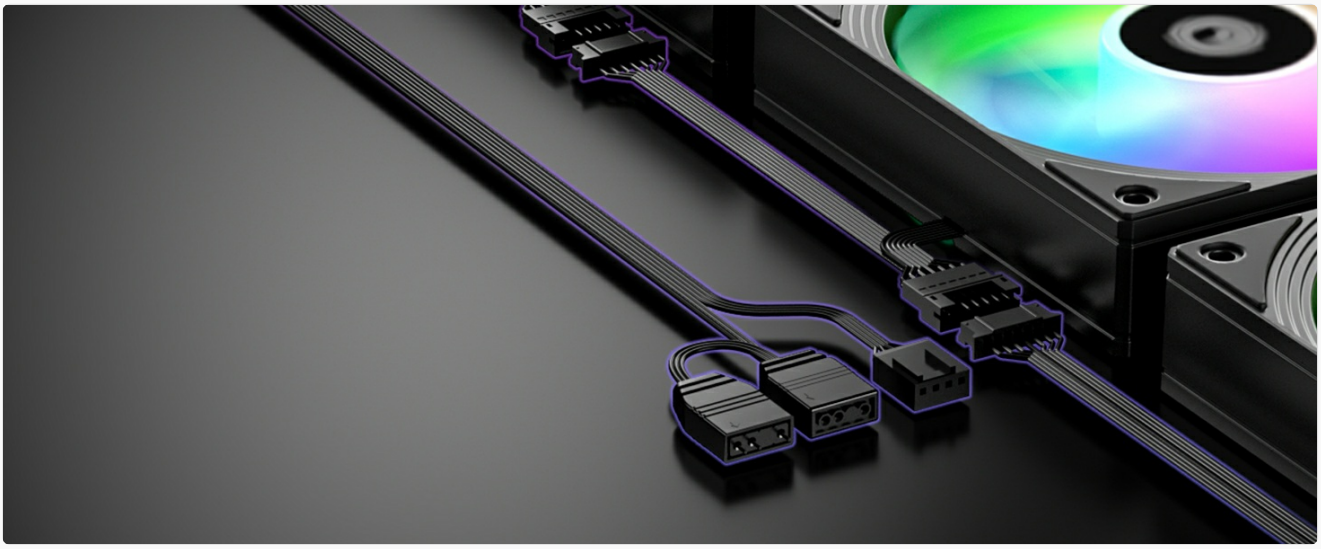

Image 2.4: Illustration of the daisy-chain fan connectors and 7-pin extension cable for simplified wiring.

Image 2.5: The pump cap can be rotated 360 degrees for optimal orientation.

3. Specifications

Feature	Specification

Feature	Specification
Model	FX240 INF
Radiator Size	240mm
TDP	300W
Pump Speed	2900 RPM (±10%)
Fan Size	120mm
Noise Level (Max)	27.2 dB(A)
Air Flow Capacity	58 CFM
Power Connector Type	4-Pin (PWM for fans), 3-Pin (DC for pump)
Voltage	12 Volts (DC)
Compatible Sockets	Intel LGA1851/1700/1200/1151/1150/1155/1156, AMD AM5/AM4
Product Dimensions	4.72"L x 0.98"W x 4.72"H (Fan)

4. Setup and Installation

Before beginning, ensure your system is powered off and disconnected from the power source. Refer to your motherboard manual for specific socket information.

4.1 Prepare the Motherboard

1. Identify your CPU socket type (Intel or AMD).
2. Install the appropriate backplate (if required for your socket) on the rear of the motherboard.
3. Attach the correct mounting standoffs to the motherboard's CPU socket holes.

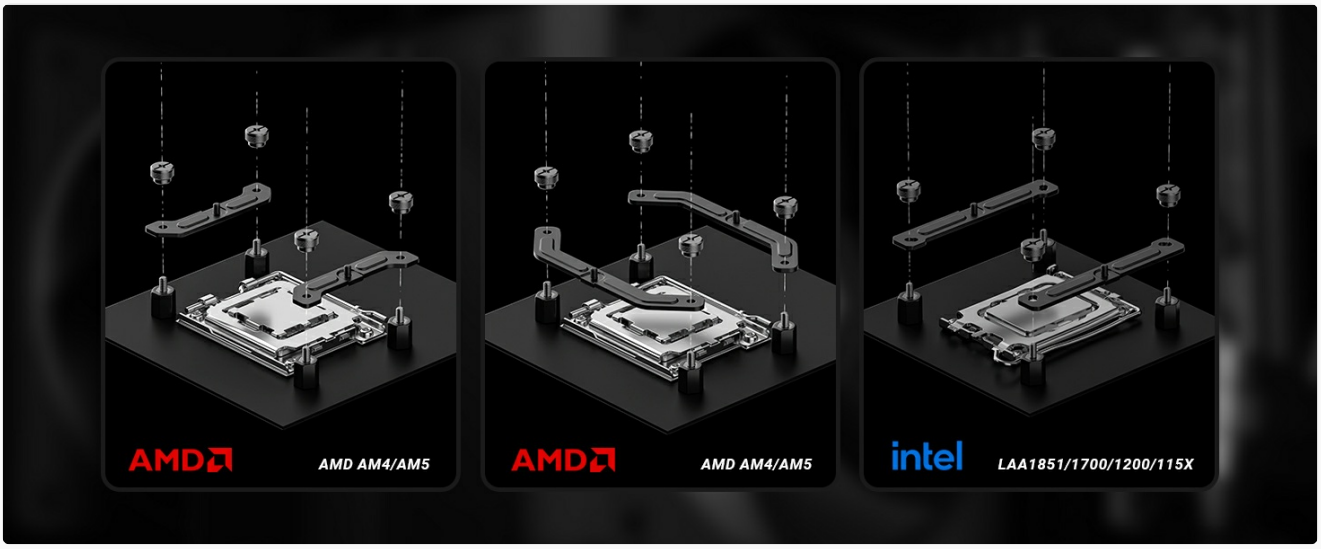

Image 4.1: Various mounting brackets and hardware for Intel and AMD platforms.

4.2 Install Radiator and Fans

1. Mount the two 120mm fans to the radiator using the provided screws. Ensure the fan airflow direction is appropriate for your case (typically exhausting air out of the case).

2. Install the radiator assembly into your PC case. Common mounting locations include the top or front of the case. Secure it with the appropriate screws.

4.3 Apply Thermal Paste and Mount Pump

1. Clean the CPU surface and the cold plate of the pump.
2. Apply a small amount of the included thermal paste to the center of your CPU. A pea-sized dot is generally sufficient.
3. Carefully place the pump assembly onto the CPU, aligning the mounting holes with the standoffs.
4. Secure the pump with the appropriate retention brackets and screws. Tighten screws in a diagonal pattern until snug, but do not overtighten.

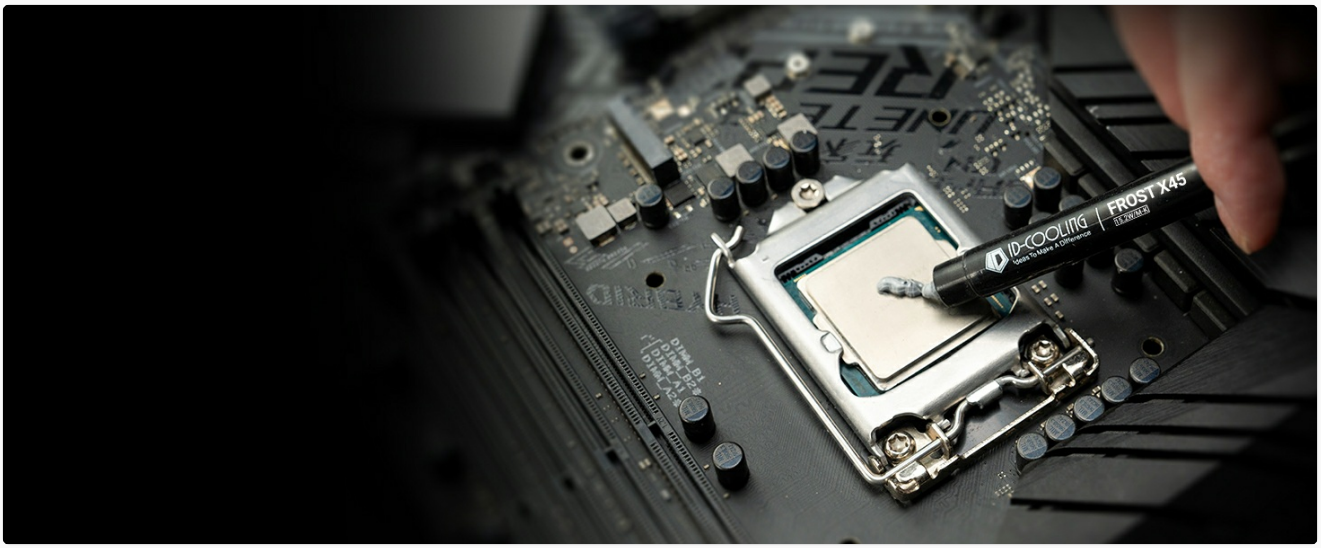

Image 4.2: Proper application of thermal paste to the CPU surface.

4.4 Cable Management and Connections

1. Connect the daisy-chained fan cables to the 7-pin extension cable.
2. Connect the 4-pin fan connector from the extension cable to a CPU_FAN or PUMP_FAN header on your motherboard.
3. Connect the 3-pin ARGB connector from the extension cable to a 5V ARGB header on your motherboard**Note:** Do not connect to a 12V RGB header, as this may damage the LEDs.
4. Connect the pump's power cable to a dedicated AIO_PUMP or PUMP_FAN header on your motherboard. This is typically a 3-pin DC header. Ensure your motherboard BIOS is configured for voltage control on this header if it is not a 4-pin PWM header, to allow for proper pump speed control.
5. Route all cables neatly to ensure proper airflow and aesthetics.

Image 4.3: The ID-COOLING FX240 INF cooler fully installed within a PC case.

5. Operating Instructions

5.1 Initial Power-On

After installation, power on your system. The fans and pump should begin operating, and the ARGB lighting on the pump and fans should illuminate.

5.2 BIOS/UEFI Configuration

Access your motherboard's BIOS/UEFI settings to:

- Ensure the CPU_FAN or PUMP_FAN header is set to PWM mode for the fans.
- Ensure the AIO_PUMP or PUMP_FAN header connected to the pump is set to DC/Voltage control mode, if applicable, to allow for proper pump speed regulation. Set the pump to run at 100% or a high fixed speed for optimal cooling.
- Monitor CPU temperatures to confirm effective cooling.

5.3 ARGB Control

The Addressable RGB (ARGB) lighting can be controlled via your motherboard's RGB software (e.g., ASUS Aura Sync, MSI Mystic Light Sync, Gigabyte RGB Fusion, ASRock Polychrome Sync) or a dedicated ARGB controller (not included). Ensure the 3-pin ARGB connector is properly connected to a 5V ARGB header.

6. Maintenance

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

- **Dust Cleaning:** Periodically clean dust from the radiator fins and fan blades using compressed air. Ensure fans are not spinning during cleaning to prevent damage.
- **Check Connections:** Occasionally check all cable connections (power, ARGB) to ensure they are secure.
- **Inspect Tubing:** Visually inspect the tubing for any signs of kinks, leaks, or damage.
- **Thermal Paste:** While not frequently required, if you remove the pump from the CPU, you must clean off old thermal paste and apply new thermal paste before re-mounting.

7. Troubleshooting

If you encounter issues with your ID-COOLING FX240 INF cooler, refer to the following common problems and solutions:

7.1 High CPU Temperatures

- **Check Pump Operation:** Ensure the pump is receiving power and operating. Listen for a faint hum or feel for vibrations. Verify pump speed in BIOS/UEFI.
- **Thermal Paste:** Confirm thermal paste was applied correctly and evenly. Reapply if necessary.
- **Mounting Pressure:** Ensure the pump is securely mounted to the CPU with adequate and even pressure.
- **Fan Operation:** Verify that both fans are spinning. Check fan connections and speeds in BIOS/UEFI.
- **Radiator Airflow:** Ensure the radiator fins are not clogged with dust and that case airflow is adequate.

7.2 Excessive Noise

- **Fan Noise:** Check if fan blades are obstructed or if screws are loose. Adjust fan speed curves in BIOS/UEFI to reduce noise at lower temperatures.
- **Pump Noise:** A slight hum is normal. If a high-frequency whine is present, check pump speed settings in BIOS/UEFI. Some users report reducing pump speed slightly (e.g., to 63%) can mitigate whine without significant performance loss. Ensure the pump header is set to DC/Voltage control if it's a 3-pin connector.
- **Vibration:** Ensure all components (fans, radiator, pump) are securely mounted to prevent vibration.

7.3 ARGB Lighting Not Working

- **Check Connections:** Verify the 3-pin ARGB connector is securely plugged into a 5V ARGB header on your motherboard.
- **Software Control:** Ensure your motherboard's RGB software is installed and configured correctly.
- **Compatibility:** Confirm you are using a 5V ARGB header, not a 12V RGB header.

8. Warranty and Support

For warranty information and technical support, please refer to the official ID-COOLING website or contact their customer service directly. Keep your proof of purchase for warranty claims.
Official ID-COOLING Store: ID-COOLING Amazon Store