ID-COOLING FROZN A410 DK

ID-COOLING FROZN A410 DK CPU Cooler Instruction Manual

Model: FROZN A410 DK | Brand: ID-COOLING

1. Product Overview

The ID-COOLING FROZN A410 DK is an all-black single tower CPU air cooler designed for efficient heat dissipation. It features two 120mm FDB fans in a push-pull configuration and four direct contact heat pipes to effectively manage CPU temperatures. With a total height of 152mm, it offers broad compatibility with various chassis models and ensures non-interference with RAM and PCIe slots. The cooler supports a wide range of Intel and AMD sockets, including the latest LGA1700/1851 and AM4/AM5 platforms, providing a hassle-free installation experience.

Figure 1: Main view of the ID-COOLING FROZN A410 DK CPU Cooler.

2. Key Features

- **Better Heat Dissipation:** Single tower design with 4 heat pipes and two 120mm FDB fans in a push-pull configuration for excellent CPU cooling.
- **Compact Height:** 152mm total height ensures compatibility with a wide range of PC chassis.

- **RAM Compatibility:** Designed to avoid interference with memory modules and PCIe slots.
- **Direct Contact Heat Pipes:** Four Ø6mm direct contact heat pipes with exclusive technology for effective heat transfer.
- **PWM Fans:** Dual 120mm PWM fans offer automatic speed control and ultra-quiet operation (Max. Air Flow: 78.25CFM; Noise Level: 29.85dB(A) Max.).
- **Hassle-free Installation:** Compatible with Intel LGA1700/1851/1200/1150/1151/1155/1156 and AMD AM4/AM5 sockets.
- **Aesthetic Appeal:** All-black layout blends seamlessly into most computer cases.

3. What's in the Box

The ID-COOLING FROZN A410 DK CPU Cooler package includes:

- Heatsink
- 2x 120mm Cooling Fans
- Mounting Hardware (for Intel and AMD sockets)
- Thermal Grease
- 1-to-2 4-pin PWM Fan Splitter

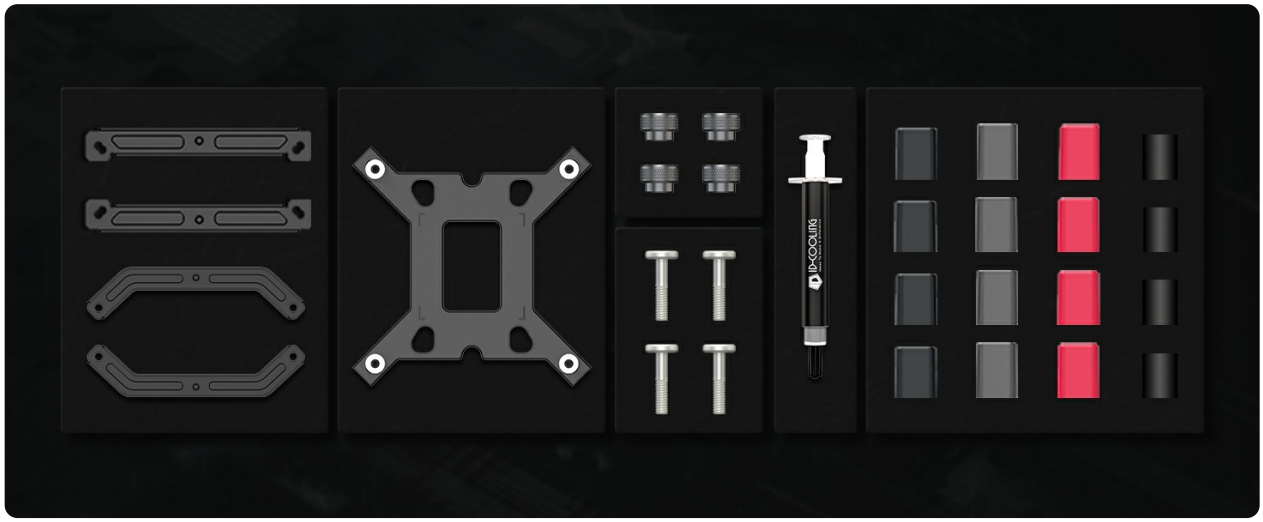

Figure 2: Included components for the FROZN A410 DK CPU Cooler.

4. Installation Guide

Follow these steps for proper installation of your ID-COOLING FROZN A410 DK CPU Cooler. Refer to the video guides for visual assistance.

4.1. Intel LGA1700/1851/1200/115X Installation

1. **Prepare Backplate:** Adjust the Intel backplate screws to the corresponding positions (pull outward for LGA1851/1700, pull inward for LGA1200/115X). Place the backplate through the back of the motherboard.
2. **Install Standoffs and Brackets:** Install the rubber Intel standoffs and Intel bracket in sequence. Secure the bracket with screws.

3. **Apply Thermal Grease:** Clean the CPU surface. Peel off the protective sticker from the copper plate of the heatsink. Apply a thin, even layer of thermal grease to the CPU surface.
4. **Mount Heatsink:** Carefully place the heatsink onto the CPU, aligning it with the mounting holes. Secure it by tightening the two screws on each side.
5. **Attach Fans:** Use the provided fan clips to secure both 120mm fans to the heatsink tower in a push-pull configuration. Ensure the airflow direction is correct (typically, one fan pushes air into the heatsink, and the other pulls it through).
6. **Connect Fans:** Connect the two fan cables to the 1-to-2 4-pin splitter. Then, connect the splitter to the CPU_FAN header on your motherboard.

4.2. AMD AM4/AM5 Installation

1. **Remove Stock Brackets:** Remove the original AMD plastic retention frame from the motherboard, but keep the stock backplate.
2. **Install Standoffs and Brackets:** Install the red AMD standoffs and the universal AMD bracket. Secure them with screws.
3. **Apply Thermal Grease:** Clean the CPU surface. Peel off the protective sticker from the copper plate of the heatsink. Apply a thin, even layer of thermal grease to the CPU surface.
4. **Mount Heatsink:** Carefully place the heatsink onto the CPU, aligning it with the mounting holes. Secure it by tightening the two screws on each side.
5. **Attach Fans:** Use the provided fan clips to secure both 120mm fans to the heatsink tower in a push-pull configuration. Ensure the airflow direction is correct.
6. **Connect Fans:** Connect the two fan cables to the 1-to-2 4-pin splitter. Then, connect the splitter to the CPU_FAN header on your motherboard.

Installation Video Guide (Intel & AMD)

Video 1: Official installation guide for the FROZN A410 DK CPU Cooler, demonstrating steps for both Intel and AMD platforms.

Product Overview and Installation Tips

Video 2: A brief overview of the FROZN A410 DK, highlighting key features and providing additional installation tips.

5. Operating Instructions

Once installed, the FROZN A410 DK CPU Cooler operates automatically via the motherboard's PWM fan control. Ensure your motherboard BIOS settings are configured for optimal fan curves to balance cooling performance and noise levels.

- **BIOS/UEFI Settings:** Access your motherboard's BIOS/UEFI to customize fan speed curves. You can set fan speeds to increase with CPU temperature for better cooling under load or decrease for quieter operation at idle.
- **Temperature Monitoring:** Use system monitoring software (e.g., HWMonitor, CPU-Z) to keep track of your CPU temperatures to ensure it stays within safe operating limits.
- **Airflow Optimization:** Ensure good airflow within your PC case by properly arranging other case fans to complement the push-pull configuration of the CPU cooler.

6. Maintenance

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

- **Dust Cleaning:** Periodically clean dust from the heatsink fins and fan blades using compressed air or a soft brush. Ensure the fans are not spinning during cleaning.
- **Thermal Paste:** Reapply thermal paste if you remove the heatsink for any reason. Old thermal paste can dry out and reduce cooling efficiency.
- **Fan Inspection:** Check fan cables for secure connections and ensure fan blades are free from obstructions.

7. Troubleshooting

If you encounter issues with your CPU cooler, consider the following:

- **High CPU Temperatures:**
  - Check if the heatsink is securely mounted and making proper contact with the CPU.
  - Verify that thermal paste was applied correctly and is not dried out.
  - Ensure fans are spinning and not obstructed.
  - Check BIOS/UEFI fan settings to ensure an aggressive enough fan curve.
- **Excessive Fan Noise:**
  - Check for dust buildup on fans and heatsink.
  - Ensure fan cables are not hitting fan blades.
  - Adjust BIOS/UEFI fan settings to a quieter fan curve if temperatures allow.
- **Fans Not Spinning:**
  - Verify that the fan splitter is correctly connected to both fans and the CPU_FAN header on the motherboard.
  - Check motherboard BIOS/UEFI settings to ensure fan control is enabled.

8. Specifications

Feature	Specification
Product Dimensions	4.72"L x 3.85"W x 5.98"H (120mm L x 98mm W x 152mm H)
Brand	ID-COOLING
Power Connector Type	4-Pin PWM
Wattage (TDP)	230 watts
Cooling Method	Air
Compatible Devices	Desktop CPUs (Intel LGA1700/1851/1200/1150/1151/1155/1156, AMD AM4/AM5)

Noise Level	29.85 dB(A) Max
Maximum Rotational Speed	2000 RPM
Air Flow Capacity	78.25 CFM
Item Weight	2.61 pounds

9. 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 purchase receipt for warranty claims.