ID-COOLING FROZN A410 ARGB

ID-COOLING FROZN A410 ARGB White CPU Cooler Instruction Manual

Brand: ID-COOLING | Model: FROZN A410 ARGB

1. INTRODUCTION

This manual provides detailed instructions for the ID-COOLING FROZN A410 ARGB White CPU Cooler. This high-performance air cooler is designed to provide efficient heat dissipation for your CPU, featuring 4 copper heat pipes, a 120mm Fluid Dynamic Bearing (FDB) fan, and vibrant Addressable RGB (ARGB) lighting. It offers excellent compatibility with various RAM modules due to its single tower design.

Key Features:

- **Efficient Heat Dissipation:** Equipped with 4 heat pipes and a 120mm FDB fan for optimal CPU cooling.
- **Vibrant ARGB Lighting:** Integrated ARGB lighting on the top cover and fan for customizable visual effects.
- **RAM Compatibility:** Single tower design ensures perfect compatibility with various RAM configurations.
- **Fluid Dynamic Bearing Fan:** Provides longer lifespan, quieter operation, reduced vibration, and improved efficiency.

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Video 1: Introducing the ID-COOLING FROZN A410 ARGB White CPU Cooler. This video provides a visual overview of the cooler's design and ARGB lighting effects within a PC build.

2. SETUP AND INSTALLATION

Before beginning installation, ensure your system is powered off and unplugged. Refer to your motherboard manual for specific CPU socket details. The ID-COOLING FROZN A410 ARGB White CPU Cooler supports Intel LGA1700/1851/1200/115X and AMD AM4/AM5 sockets.

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Video 2: Detailed installation guide for FROZN Single Tower Series coolers on various Intel and AMD platforms. This video demonstrates the step-by-step process for mounting the cooler.

2.1. Included Components

Verify all components are present before installation:

- Heatsink with 4 heat pipes
- 120mm ARGB Fan
- Intel Backplate (for LGA1700/1200/115X)
- Intel Brackets
- AMD Brackets
- Mounting Screws and Nuts
- Rubber Spacers (Black for Intel LGA1700, Grey for Intel LGA1200/115X, Red for AMD)
- Thermal Grease

Image 1: Overview of the mounting hardware included with the FROZN A410 ARGB White CPU Cooler, showing components for both Intel and AMD platforms.

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

1. **Prepare Backplate:** For LGA1700, move the screws of the Intel Backplate to the outermost position. For LGA1200/115X, move them to the innermost position. Install the backplate on the back of the motherboard.
2. **Install Spacers:** Place the appropriate rubber spacers (Black for LGA1700, Grey for LGA1200/115X) onto the backplate screws protruding through the motherboard.
3. **Secure Brackets:** Place the Intel mounting brackets on top of the spacers, aligning them with the CPU socket. Secure with the tightening nuts.
4. **Apply Thermal Paste:** Clean the CPU surface thoroughly. Apply a small amount of thermal paste (included) to the center of the CPU.
5. **Mount Heatsink:** Remove the protective sticker from the heatsink base. Carefully place the heatsink onto the CPU, aligning the mounting holes with the bracket screws. Tighten the screws in a diagonal pattern until secure.
6. **Attach Fan:** Use the provided fan clips to secure the 120mm ARGB fan to the heatsink. Ensure the fan is oriented to blow air through the heatsink fins towards the rear of the case.
7. **Connect Cables:** Connect the 4-pin PWM fan cable to the CPU_FAN header on your motherboard. Connect the ARGB cable to a compatible 3-pin 5V ARGB header on your motherboard or ARGB controller.

2.3. AMD AM4/AM5 Installation

Note: The original backplate of your AMD motherboard is required for installation.

1. **Remove Stock Retention:** Remove the plastic retention module from the motherboard, but keep the stock metal backplate.
2. **Install Spacers:** Place the red AMD standoffs onto the backplate screws.
3. **Secure Brackets:** Place the AMD mounting brackets on top of the standoffs, aligning them with the CPU socket. Secure with the tightening screws.
4. **Apply Thermal Paste:** Clean the CPU surface thoroughly. Apply a small amount of thermal paste (included) to the center of the CPU.
5. **Mount Heatsink:** Remove the protective sticker from the heatsink base. Carefully place the heatsink onto the CPU, aligning the mounting holes with the bracket screws. Tighten the screws in a diagonal pattern until secure.
6. **Attach Fan:** Use the provided fan clips to secure the 120mm ARGB fan to the heatsink. Ensure the fan is oriented to blow air through the heatsink fins towards the rear of the case.
7. **Connect Cables:** Connect the 4-pin PWM fan cable to the CPU_FAN header on your motherboard. Connect the ARGB cable to a compatible 3-pin 5V ARGB header on your motherboard or ARGB controller.

3. OPERATION

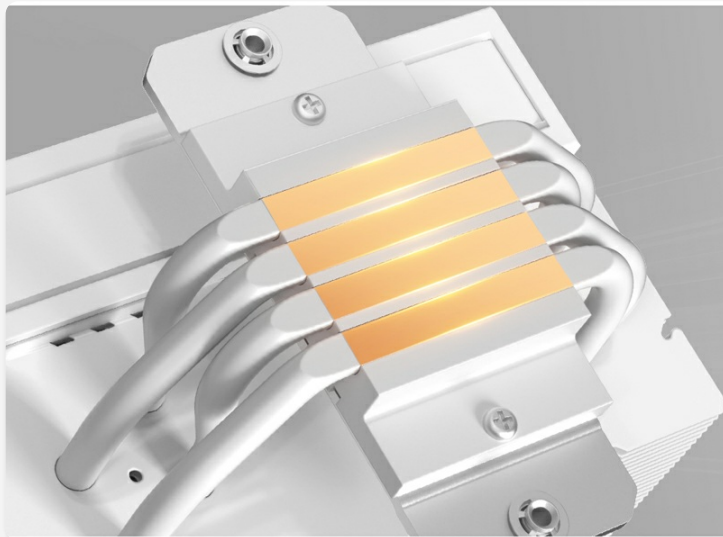The ID-COOLING FROZN A410 ARGB White CPU Cooler is designed for optimal performance and aesthetics.

3.1. Fan Control (PWM)

The 120mm FDB fan is a Pulse Width Modulation (PWM) fan, allowing your motherboard to dynamically control its speed based on CPU temperature. This ensures efficient cooling when needed and quiet operation during lighter loads. You can configure fan curves through your motherboard's BIOS/UEFI settings or dedicated software provided by your motherboard manufacturer.

MICRO WAVE FINS
The special design of the micro wave
on Aluminum fins for bigger heat dissipation.

Image 2: Diagram illustrating the Fluid Dynamic Bearing (FDB) technology used in the fan, highlighting its benefits for longevity and quiet operation.

BETTER DISSIPATION

4 direct-contact heat pipes can transfer the heat efficiently.

Image 3: Visual representation of the fan's performance metrics, including airflow (78 CFM), noise level (29.9 dB(A) Max), and air pressure (2.68mmH2O Max).

3.2. ARGB Lighting Control

The Addressable RGB (ARGB) lighting on the fan and top cover can be controlled via your motherboard's ARGB software (e.g., ASUS Aura Sync, MSI Mystic Light Sync, GIGABYTE RGB Fusion, ASRock Polychrome Sync) or a dedicated ARGB controller (if connected). Ensure the ARGB cable is properly connected to a 3-pin 5V ARGB header.

EXTREME COOLING FAN

The fan blade and square fan frame provide quieter operation and stable performance output.

| 78CFM | 500~2,000±10% RPM | 29.9dB(A) Max. | FDB |
| Max. Air Flow | Fan Speed | Noise | Bearing Type |

Image 4: The FROZN A410 ARGB White CPU Cooler showcasing its vibrant ARGB lighting when installed in a white PC case.

4. MAINTENANCE

Regular maintenance ensures optimal performance and longevity 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 fan is not spinning during cleaning to prevent damage.
- **Thermal Paste:** Reapply thermal paste every 1-2 years, or if the cooler is removed and reinstalled. Ensure the CPU and heatsink surfaces are clean before applying new thermal paste.
- **Fan Inspection:** Check fan cables for secure connections and ensure fan blades are free from obstructions.

5. TROUBLESHOOTING

If you encounter issues with your CPU cooler, refer to the following common solutions:

Problem	Possible Cause	Solution
CPU Overheating	Improper thermal paste application, loose heatsink, insufficient airflow, dust buildup.	Reapply thermal paste, ensure heatsink is securely mounted, clean heatsink and fan, check case airflow.
Fan Not Spinning	Fan cable disconnected, faulty fan header, fan failure.	Check 4-pin PWM connection to CPU_FAN header, try a different fan header, replace fan if faulty.
ARGB Lighting Not Working	ARGB cable disconnected, incompatible ARGB header (e.g., 4-pin 12V instead of 3-pin 5V), software issue.	Check 3-pin 5V ARGB connection, ensure correct header type, update/reinstall motherboard ARGB software.
Excessive Fan Noise	Fan speed too high, dust buildup, faulty fan bearing.	Adjust fan curve in BIOS/UEFI, clean fan, replace fan if bearing is faulty.

6. SPECIFICATIONS

Feature	Detail
Product Dimensions	4.72"L x 0.98"W x 4.72"H (Fan only)
Cooler Height	152mm (6 inches)
Cooling Method	Air
Heat Pipes	4 x Φ6mm Copper Heat Pipes
Fan Dimensions	120x120x25mm
Fan Bearing Type	Fluid Dynamic Bearing (FDB)
Maximum Rotational Speed	2000 RPM
Air Flow Capacity	78 Cubic Feet Per Minute (CFM)
Noise Level	29.9 Decibels (Max)
Power Connector Type	4-Pin PWM
Voltage	12 Volts
Wattage	5.64 watts
TDP (Thermal Design Power)	220W
Compatible Devices	Desktop CPUs
Supported Sockets	Intel LGA1700/1851/1200/115X; AMD AM4/AM5
Material	Copper, Metal/Aluminum, Plastic/Rubber, Resin
Item Weight	2.33 pounds

Feature	Detail
What's in the Box	Heatsink, Cooling Fan, Mounting Hardware, Thermal Grease

Image 5: Illustration of the 4 direct contact heatpipes, showing how they efficiently transfer heat from the CPU.

Image 6: Diagram highlighting the cooler's design for perfect memory compatibility, ensuring clearance for RAM modules.
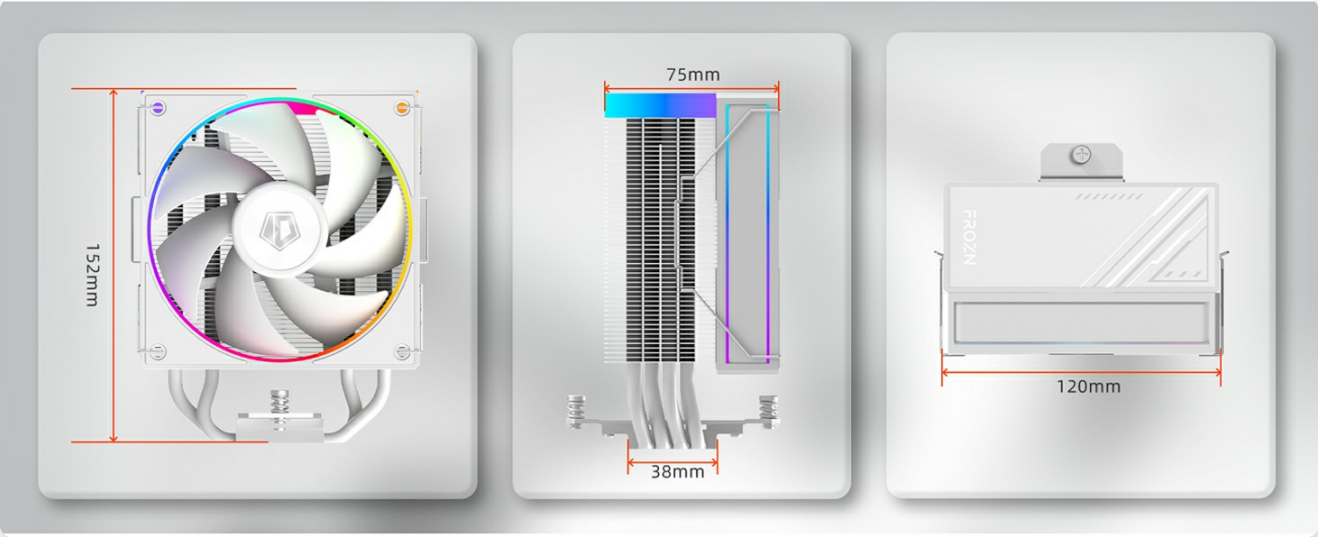

Image 7: The ID-COOLING FROZN A410 ARGB White CPU Cooler, emphasizing its aesthetic appeal.

7. Warranty and Support

For warranty information and technical support, please refer to the official ID-COOLING website or contact their customer service. Keep your purchase receipt as proof of purchase for any warranty claims.

Online Resources: ID-COOLING Store on Amazon