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ARCTIC ACFRE00180A

ARCTIC Liquid Freezer III Pro 360 - Instruction Manual

Model: ACFRE00180A | Brand: ARCTIC

INTRODUCTION

The ARCTIC Liquid Freezer III Pro 360 is an advanced all-in-one CPU liquid cooler engineered to deliver exceptional cooling performance for demanding computing tasks. This manual provides essential information for the setup, operation, and maintenance of your cooler.



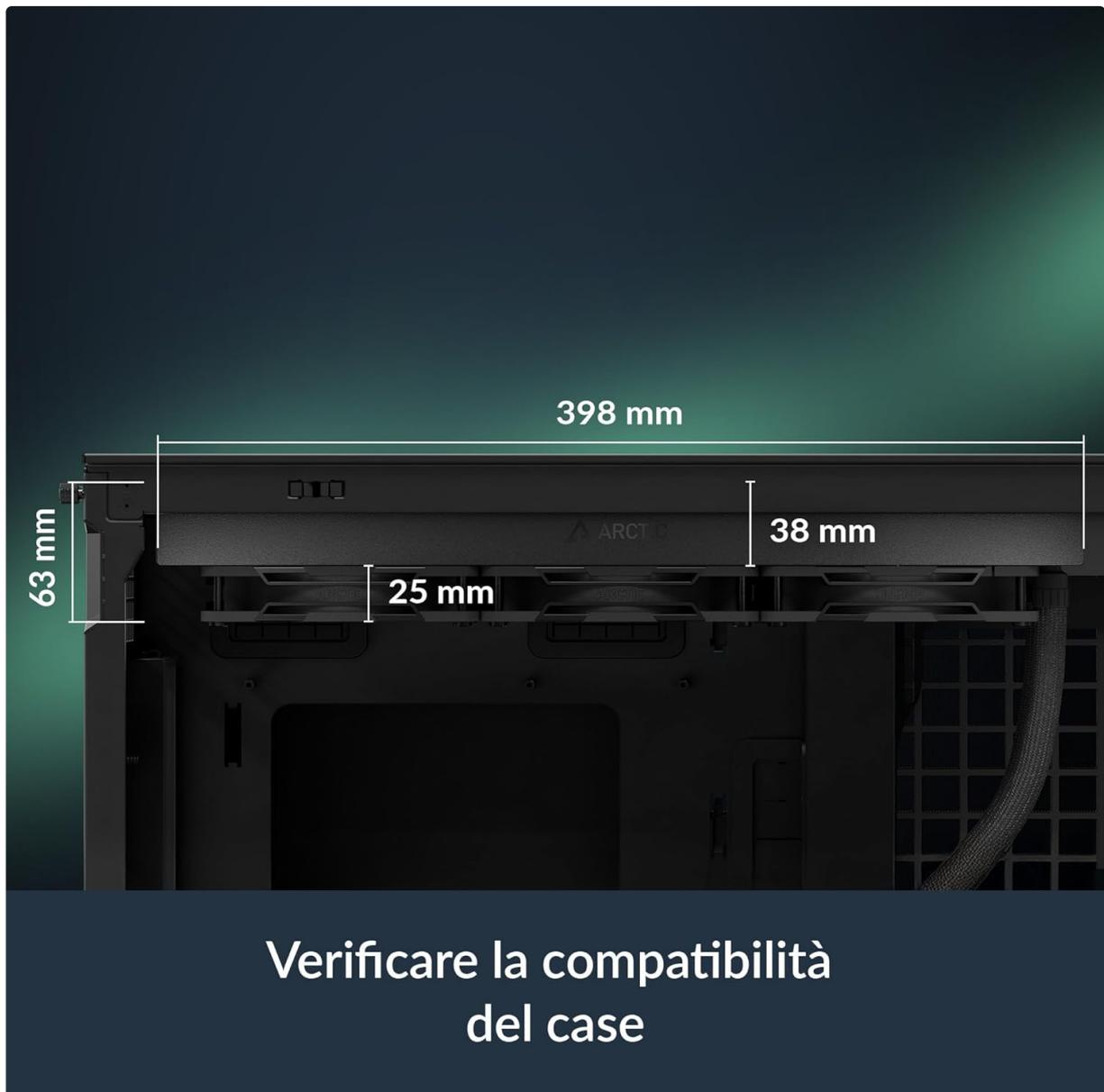
Image: ARCTIC Liquid Freezer III Pro 360 AIO CPU Cooler with radiator, fans, and pump block.

KEY FEATURES

- **CONTACT FRAME FOR INTEL LGA1851 | LGA1700:** Optimized contact pressure distribution for a longer CPU lifespan and better heat dissipation.
- **ARCTIC'S P12 PRO FAN:** More performance at every speed – especially more powerful and quieter than the P12 at low speeds. Higher maximum speed for optimal cooling performance under high loads.
- **NATIVE OFFSET MOUNTING FOR INTEL AND AMD:** Shifting the cold plate center toward the CPU hotspot ensures more efficient heat transfer.
- **INTEGRATED VRM FAN:** PWM-controlled fan that lowers the temperature of the voltage regulators, ensuring reliable performance.
- **INTEGRATED CABLE MANAGEMENT:** The PWM cables of the radiator fans are integrated into the sleeve of the tubes, so only a single visible cable connects to the motherboard.

SETUP AND INSTALLATION

Before beginning installation, ensure your PC case has adequate clearance for the 360mm radiator. The radiator dimensions are 398mm (length) x 120mm (width) x 38mm (thickness). With fans, the total thickness is 63mm.



Verificare la compatibilità del case

Image: Diagram showing the dimensions of the ARCTIC Liquid Freezer III Pro 360 radiator and fans.

CPU Compatibility and Mounting

The Liquid Freezer III Pro 360 supports both AMD AM5/AM4 and Intel LGA1851/1700 sockets. For Intel LGA1851/1700, an optimized contact frame is included to ensure even pressure distribution and improved heat dissipation. For AMD AM5/AM4, the cooler features native offset mounting to align the cold plate with the CPU's hotspot for more efficient heat transfer.

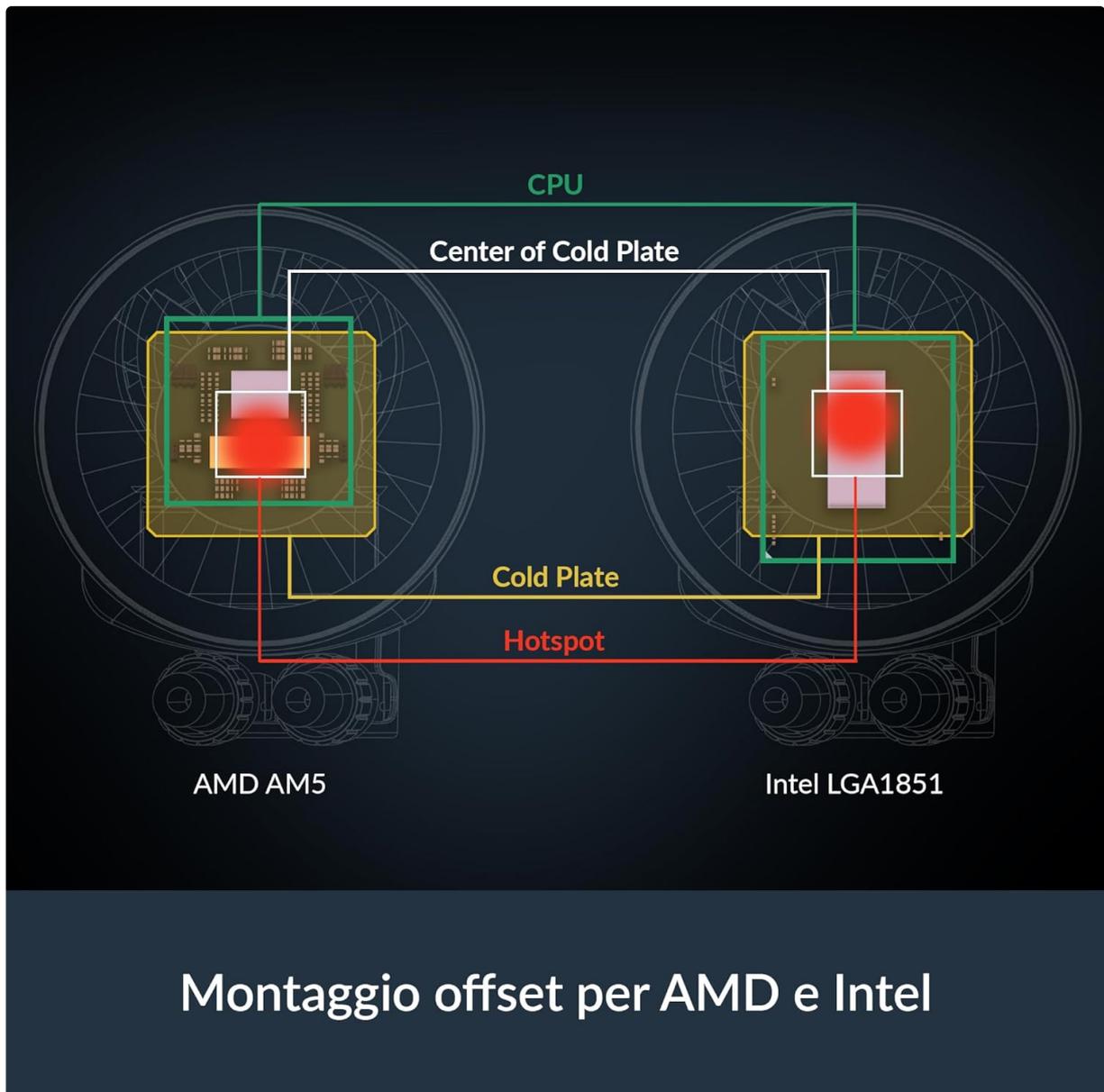
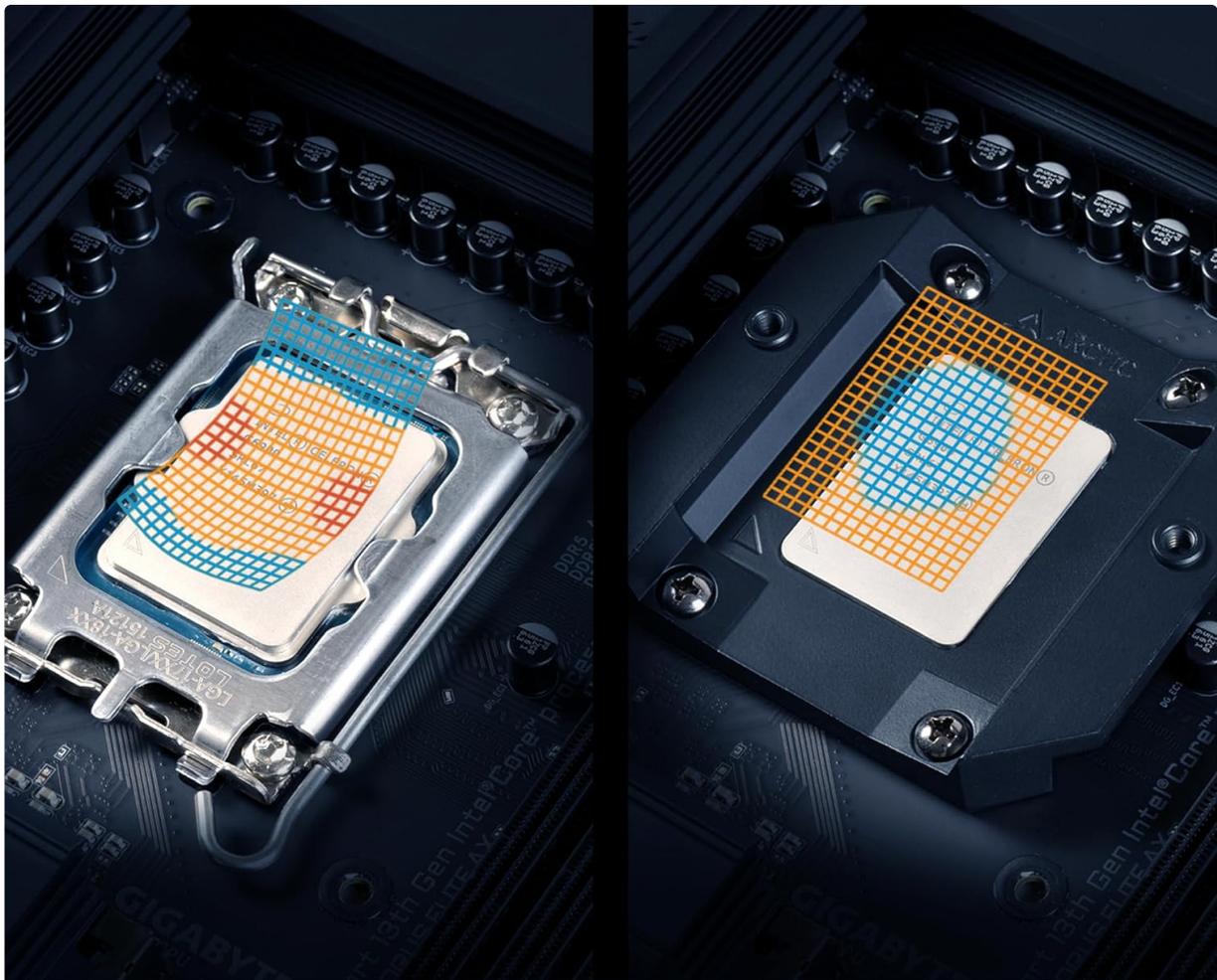


Image: Diagram illustrating the offset mounting for AMD AM5 and Intel LGA1851, showing how the cold plate aligns with the CPU hotspot.



LGA1851 | LGA1700 Telaio di contatto

Image: Close-up view of the Intel LGA1851/1700 contact frame installed on a motherboard.

Integrated VRM Fan and Cable Management

An integrated PWM-controlled VRM fan is located on the pump block to actively cool the voltage regulator modules on your motherboard, contributing to stable system performance. The cooler also features integrated cable management, where the PWM cables of the radiator fans are neatly routed within the tubes' sleeves, resulting in a cleaner build with only a single visible cable connecting to the motherboard.



Ventole preinstallate e gestione dei cavi integrata

Image: Transparent view of a PC case highlighting the integrated cable management and the VRM fan on the pump block.
For detailed step-by-step installation instructions, please refer to the official [User Manual \(PDF\)](#).

OPERATING THE COOLER

The Liquid Freezer III Pro 360 offers flexible control options for its fans and pump. You can choose between a single 'All-in-One' connection for simplified control or individual connections for the VRM fan, radiator fans, and pump for granular control over each component's speed via your motherboard's BIOS or fan control software.



Controllo completo o controllo semplice

Image: Diagram showing the 'All-in-One' 4-pin connector option versus individual 4-pin connectors for VRM Fan, Radiator Fan, and Pump. The P12 Pro fans are designed for optimal performance across their entire speed range (400-3000 RPM), providing high static pressure (6.9 mm H₂O) and airflow (77 CFM) for effective cooling.



Velocità della ventola
400–3000 giri/min.



Pressione statica
6,9 mm H₂O



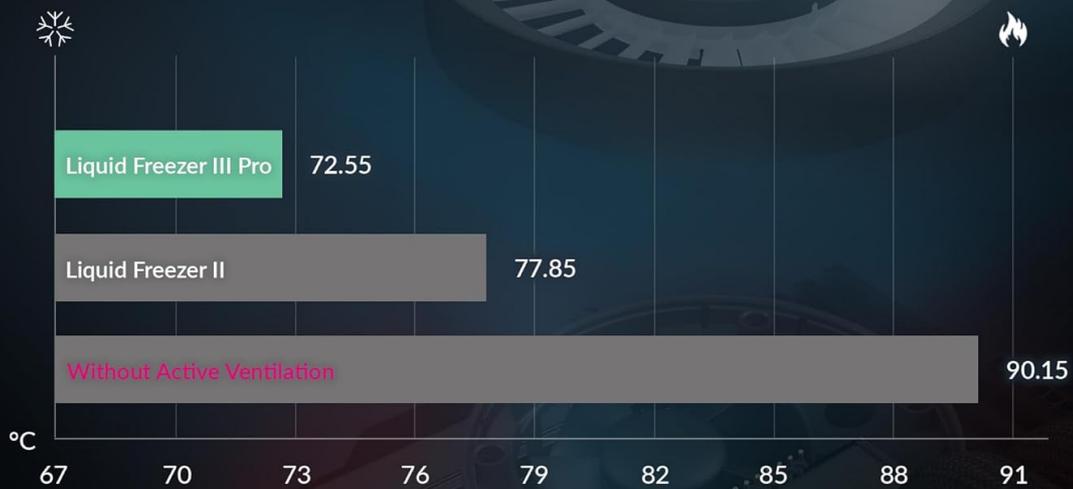
Flusso d'aria
77 cfm | 131 m³/h

Ventola ARCTIC P12 Pro

Image: Graphic detailing the fan speed, static pressure, and airflow specifications of the ARCTIC P12 Pro fan.

The integrated VRM fan significantly contributes to lower motherboard component temperatures. Internal testing shows a notable reduction in Voltage Regulator Module temperatures compared to configurations without active VRM ventilation or with previous Liquid Freezer II models.

Temperature of the Voltage Regulator Modules in °C



i9 13900KF, PPT@200 W; MSI PRO B660M-A WIFI; AIDA64 FPU Stress Test; $T_{(amb)}$: 23 °C

Raffreddamento attivo del VRM con ventola controllata tramite PWM

Image: Bar chart comparing VRM temperatures with Liquid Freezer III Pro, Liquid Freezer II, and without active ventilation.

MAINTENANCE

Regular cleaning of the radiator fins and fans is recommended to maintain optimal cooling performance. Use compressed air to gently remove dust buildup. The cooler comes pre-applied with ARCTIC MX-6 thermal paste, but additional paste is provided for reapplication if needed during maintenance or reinstallation.

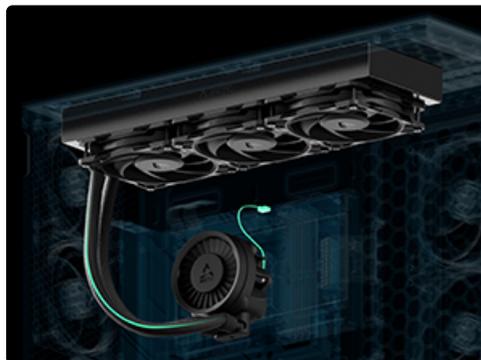


Image: A tube of ARCTIC MX-6 thermal paste being applied to a CPU.

TROUBLESHOOTING

High Fan Noise During Boot-up

Some users may experience high fan noise during system boot-up. This is often a temporary condition as the system initializes and fan curves are applied. If the noise persists after the operating system has fully loaded, check your motherboard's BIOS settings for fan curve adjustments. Ensure that the fan cables are not obstructed or touching other components, as this can amplify vibrations and noise.

Radiator Not Fitting in Case

The Liquid Freezer III Pro 360 features a thick 38mm radiator. If you encounter issues with the radiator fitting in your case, especially in the top mount position, verify your case's radiator clearance specifications. Some cases, like the HYTE Y60, may require aftermarket mounting frames or modifications to accommodate thicker radiators. Ensure sufficient space between the radiator and other components like motherboard heatsinks or RAM modules.

CPU Temperatures Higher Than Expected

If CPU temperatures are higher than anticipated, ensure proper thermal paste application and even mounting pressure. For Intel LGA1700/1851 sockets, confirm that the included contact frame is correctly installed and tightened evenly to prevent CPU bending and optimize thermal transfer. Verify that the pump and all fans are operating correctly and at appropriate speeds. Check for any air bubbles in the loop by gently tilting the PC case while the system is running.

Memory Channel Issues After Installation

If you experience issues with memory channels (e.g., half your RAM not detected or system instability) after installing the cooler, it might be related to uneven mounting pressure from the CPU cooler or contact frame. Ensure that the contact frame screws are tightened evenly in a cross pattern, applying gradual pressure to avoid over-tightening one side, which can cause slight CPU deformation and affect memory contact. Re-seating the CPU and contact frame with careful, even tightening may resolve this.

SPECIFICATIONS

Product Dimensions	15.67 x 4.72 x 2.6 inches; 4.45 Pounds
Item Model Number	ACFRE00180A
Manufacturer	ARCTIC
Brand	ARCTIC
Power Connector Type	4-Pin
Voltage	12 Volts
Wattage	3.96 watts
Cooling Method	Liquid
Maximum Rotational Speed	3000 RPM
Air Flow Capacity	77 Cubic Feet Per Minute
UPC	840033402927

WHAT'S IN THE BOX

- Liquid Freezer 360 (black)

WARRANTY AND SUPPORT

For detailed warranty information and further support, please refer to the official [User Manual \(PDF\)](#) provided by ARCTIC.

