Alphacool 11729

Alphacool Eisbaer Aurora 280 CPU Liquid Cooler User Manual

Model: 11729

1. Product Overview

The Alphacool Eisbaer Aurora 280 is an all-in-one (AIO) liquid cooling system designed for CPU cooling. It features a copper radiator and an integrated pump with addressable RGB LED lighting. The system utilizes durable TPV hoses and G1/4" fittings, allowing for expandability and refilling. The pump and fans are equipped with digital RGB LEDs for customizable lighting effects.

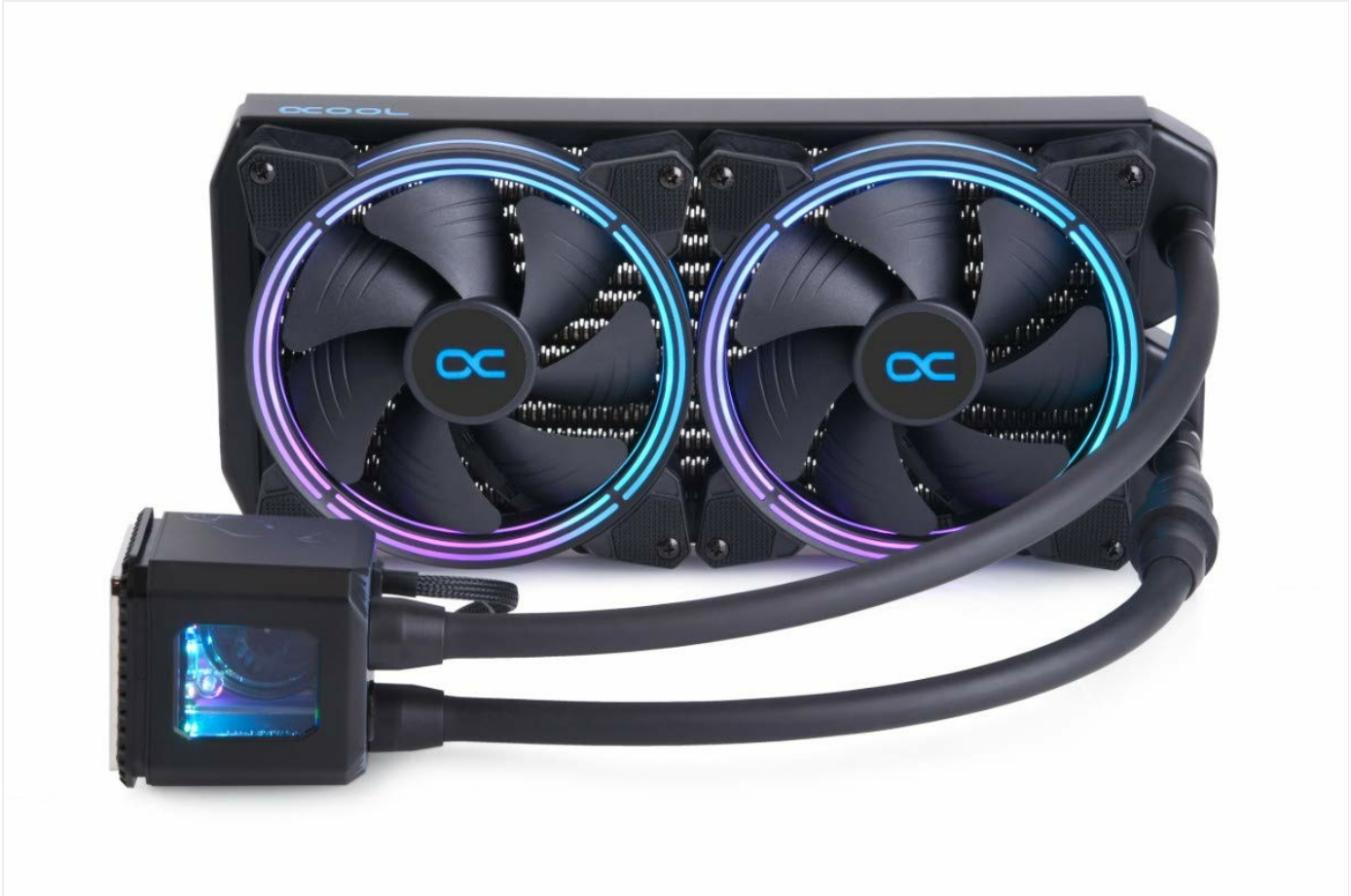

Image 1.1: The Alphacool Eisbaer Aurora 280 CPU Liquid Cooler, showcasing its radiator, fans, and pump block with active RGB lighting.

2. Package Contents

Verify that all components are present before beginning installation. The package typically includes:

- Radiator with integrated pump and reservoir
- Two 140mm Aurora LUX Pro fans
- Mounting hardware for various Intel sockets (775, 1056, 1155, 1150, 1151)
- Thermal paste
- Digital RGB controller and cables
- User manual (this document)

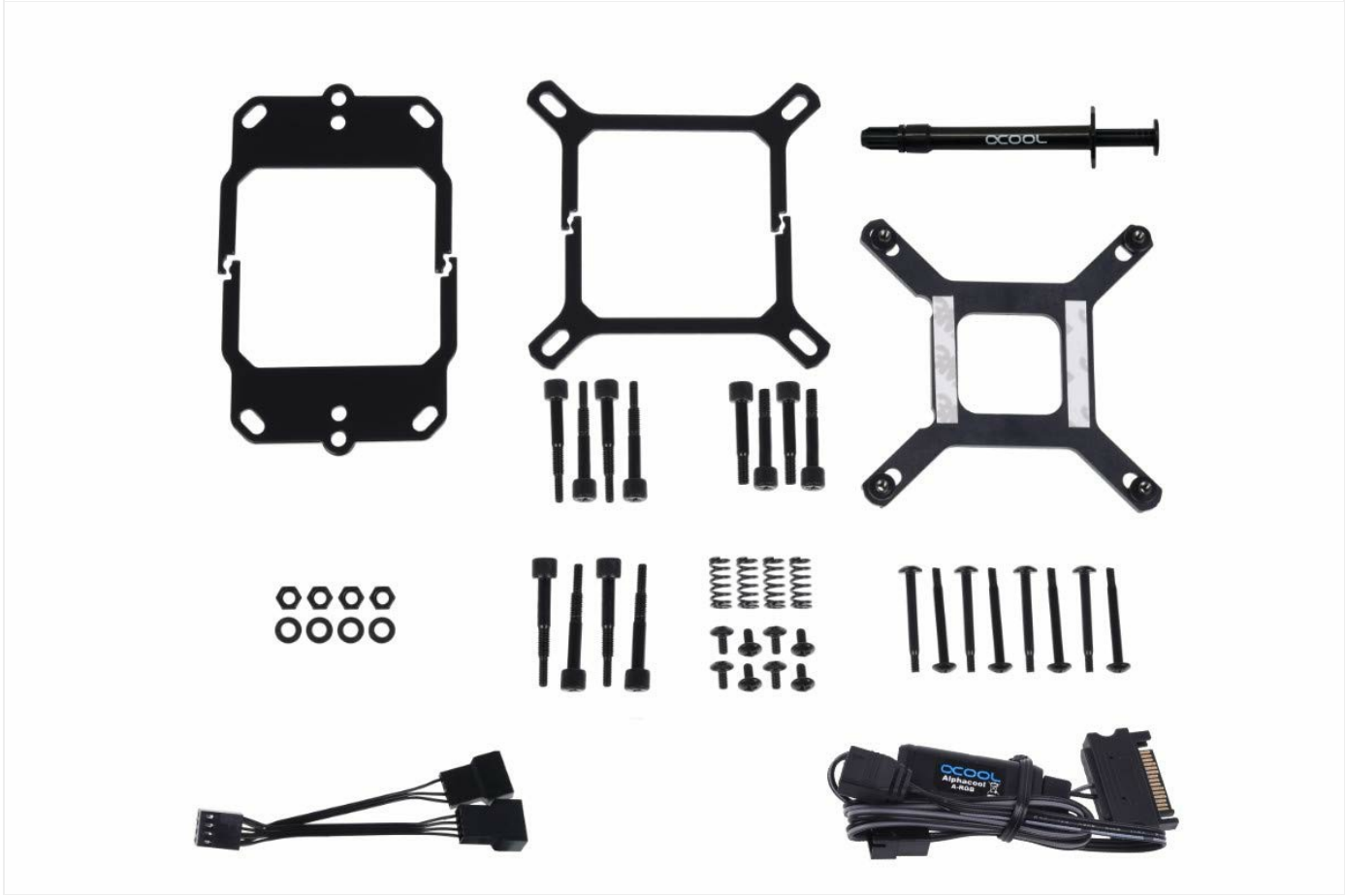

Image 2.1: Included mounting hardware, thermal paste, and cables for the Alphacool Eisbaer Aurora 280.

3. Installation Guide

This section provides general guidelines for installing the Alphacool Eisbaer Aurora 280 CPU liquid cooler. Refer to the detailed online manual for specific steps related to your CPU socket type.

3.1. Preparation

1. Ensure your system is powered off and disconnected from the power source.
2. Prepare your CPU socket by cleaning the CPU surface and applying thermal paste (if not pre-applied).
3. Identify the correct mounting brackets and screws for your motherboard's CPU socket.

3.2. Radiator and Fan Installation

1. Mount the two 140mm fans to the radiator using the provided screws. Ensure the fan airflow direction is appropriate for your case's cooling setup (intake or exhaust).
2. Install the radiator assembly into an available 280mm fan mount location in your PC case.

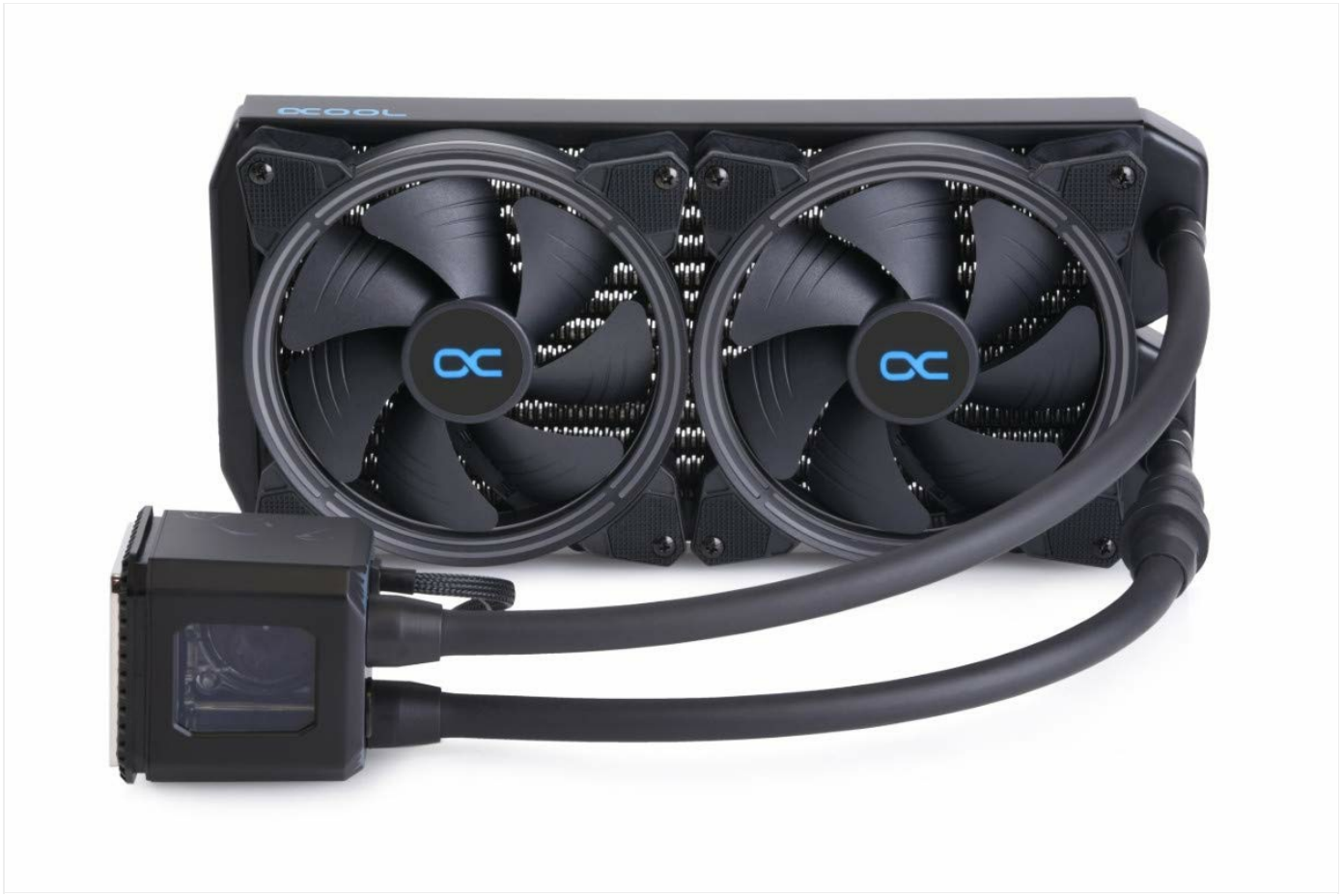

Image 3.1: The radiator and fans of the Eisbaer Aurora 280, ready for installation into a PC case.

3.3. Pump Block Installation

1. Secure the appropriate backplate (if required) to the rear of your motherboard.
2. Position the pump block over the CPU, aligning it with the mounting holes.
3. Fasten the pump block to the motherboard using the designated screws and standoffs. Tighten screws evenly in a cross pattern to ensure proper contact pressure.

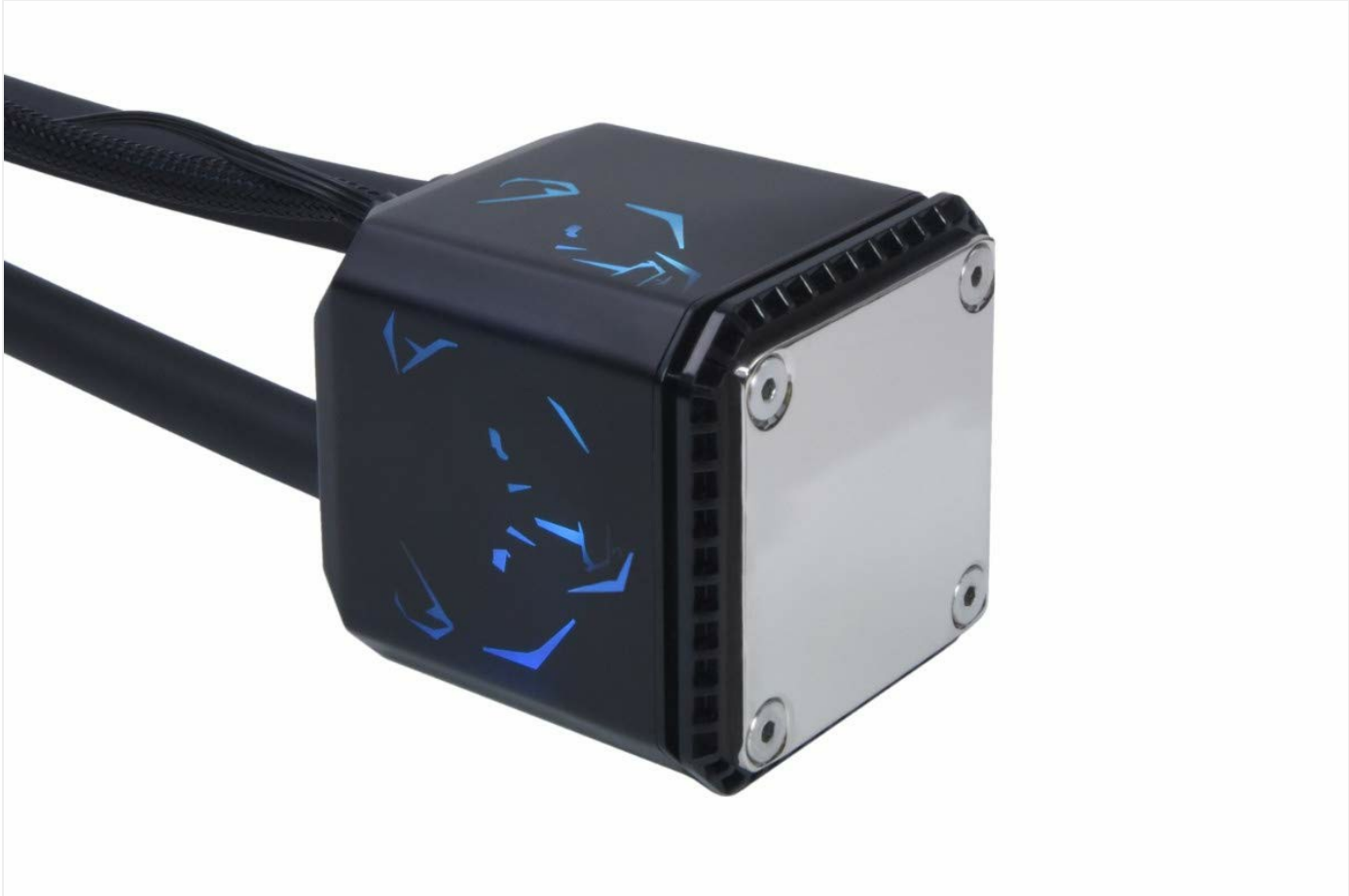

Image 3.2: The copper cold plate of the pump block, which makes direct contact with the CPU.

3.4. Cable Connections

- Connect the pump's power cable to a SATA power connector from your power supply.
- Connect the fan PWM cables to available 4-pin fan headers on your motherboard or to a fan controller. Note: A fan splitter may be required if your motherboard has insufficient headers.
- Connect the digital RGB cables from the pump and fans to a compatible 3-pin JST + 3-pin 5V digital RGB header on your motherboard or an external RGB controller.

4. Operating Instructions

4.1. Initial Startup

Upon first power-up, the pump may produce some noise as air bubbles are cleared from the loop. This is normal and should subside within a few minutes. Monitor CPU temperatures to ensure proper cooling.

4.2. RGB Lighting Control

The Eisbaer Aurora 280 features addressable RGB lighting on both the pump and fans. Control the lighting effects and colors using:

- **Motherboard Software:** If connected to a compatible motherboard's digital RGB header, use the motherboard manufacturer's RGB control software (e.g., ASUS Aura Sync, MSI Mystic Light, Gigabyte RGB Fusion).
- **External RGB Controller:** If using an external digital RGB controller, refer to the controller's specific instructions for customization.

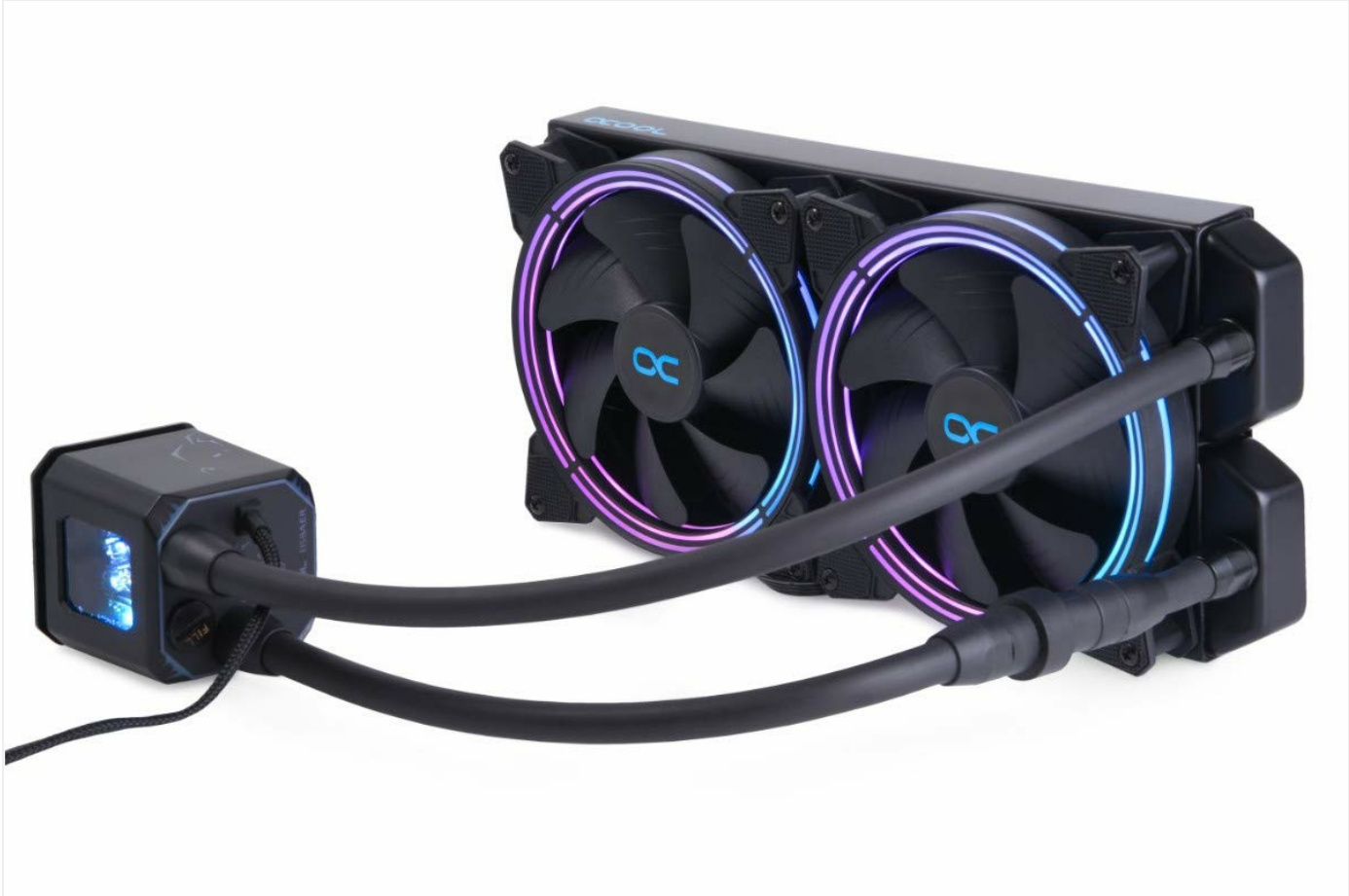

Image 4.1: The Eisbaer Aurora 280 with its digital RGB lighting active on both fans and pump block.

5. Maintenance

Regular maintenance ensures optimal performance and longevity of your liquid cooling system.

5.1. Dust Cleaning

- Periodically clean dust from the radiator fins and fan blades using compressed air or a soft brush. Excessive dust can impede airflow and reduce cooling efficiency.

5.2. Coolant Refilling and Expansion

The Eisbaer Aurora 280 is designed to be refillable and expandable.

- **Refilling:** Over time, a small amount of coolant may evaporate. The pump block features a fill port (typically a screw on top) for adding coolant. Use only Alphacool-approved coolants to prevent corrosion or damage.
- **Expansion:** The system uses G1/4" fittings and quick-release fasteners, allowing for easy integration into a larger custom loop or expansion with additional components like GPU blocks or extra radiators.

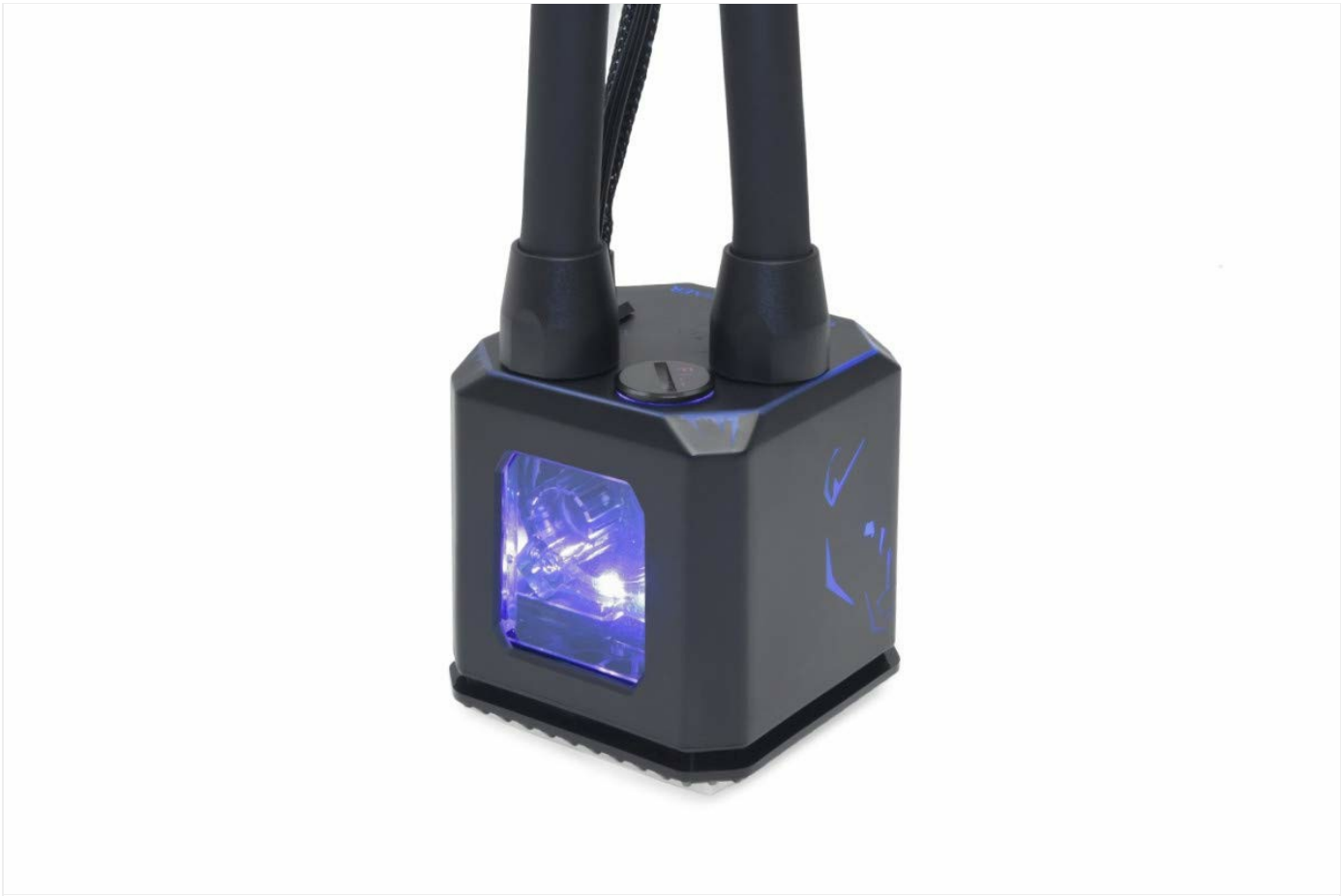

Image 5.1: The top of the pump block, showing the fill port for coolant maintenance.

6. Troubleshooting

Problem	Possible Cause	Solution
High CPU Temperatures	• Improper pump block contact with CPU. • Insufficient thermal paste application. • Air bubbles in the loop. • Fans not spinning or spinning too slowly. • Radiator fins clogged with dust.	• Re-seat pump block, ensuring even pressure. • Reapply thermal paste. • Gently shake the PC case to dislodge air bubbles; allow pump to run for a while. • Check fan connections and BIOS settings. • Clean radiator fins.
Pump Noise/Grinding Sound	• Air trapped in the pump. • Pump malfunction.	• Ensure pump is mounted lower than the highest point of the radiator to prevent air from collecting in the pump. • Gently tilt the PC case to help move air bubbles. • If noise persists or worsens, contact support.
RGB Lighting Not Working	• Incorrect RGB cable connection. • Incompatible motherboard header. • Software issue.	• Verify 3-pin digital RGB connection to motherboard or controller. • Ensure your motherboard header is 5V addressable RGB, not 12V standard RGB. • Update or reinstall RGB control software.

7. Technical Specifications

Component/Feature	Specification
Radiator Dimensions (L x W x H)	313.5 x 144 x 30 mm
Radiator Material	Full Copper
Tube Dimensions	12.7/6.7 mm
Tube Material	Thermoplastic vulcanisates, EPDM/PP
Pump Housing Dimensions (L x W x H)	66 x 66 x 69 mm
Pump Speed	2600 rpm
Pump Voltage	7 - 13.5V DC
Pump Power Consumption	4W
Fan Size	140 x 140 x 25 mm
Fan Speed	600 - 1500 rpm
Static Pressure	0.41 - 1.6 mm H2O
Air Flow Rate	27 - 71 m^3/h
Fan Bearings	Hydraulic
Fan Connector	4-Pin PWM
Digital RGB Connection	3-Pin JST + 3-Pin 5V
Compatible Intel Sockets	775 / 1056 / 1155 / 1150 / 1151

8. Warranty and Support

For warranty information and technical support, please refer to the official Alphacool website or contact your retailer. Keep your proof of purchase for warranty claims.

Important: The warranty period and support procedures may vary by region and retailer. Always consult the specific terms provided at the time of purchase.