Zalman ALPHA2 A24 Black

Zalman Alpha2 RGB 240mm AIO Liquid Cooler

User Manual

1. Introduction

Thank you for choosing the Zalman Alpha2 RGB 240mm All-in-One (AIO) Liquid Cooler. This high-performance cooling solution is designed to provide efficient heat dissipation for your CPU, ensuring stable operation and enhanced system performance. Featuring vibrant RGB lighting and a clear temperature display on the pump, the Alpha2 RGB combines aesthetics with functionality. Please read this manual thoroughly before installation and operation to ensure proper use and longevity of your product.

Image: The Zalman Alpha2 RGB 240mm AIO Liquid Cooler, showcasing its dual RGB fans and the pump block with an integrated temperature display, currently showing 34 degrees Celsius.

2. Safety Information

- Always disconnect power from your computer before installing or performing maintenance on the cooler.
- Handle components with care to avoid damage. Avoid touching the thermal paste or the cold plate surface directly.
- Ensure all cables are properly connected and routed to prevent interference with moving parts (e.g., fan blades).
- Do not attempt to open the sealed liquid cooling loop. Doing so will void the warranty and may cause leakage.

- Keep the product away from moisture and extreme temperatures.
- This product contains small parts and is not suitable for children.

3. Package Contents

Please verify that all components are present in your package:

- Zalman Alpha2 RGB 240mm Radiator with Integrated Pump/Cold Plate
- 2 x 120mm RGB Fans
- Intel Mounting Bracket Kit (LGA1700, LGA1200, LGA115X, LGA2011/2066)
- AMD Mounting Bracket Kit (AM5, AM4, AM3+, FM2+)
- Fan Screws
- Radiator Mounting Screws
- Thermal Paste (pre-applied or in a tube)
- RGB Controller/Cables (if applicable)
- User Manual

4. Setup and Installation

Follow these steps for proper installation of your Zalman Alpha2 RGB AIO cooler. Ensure your motherboard and CPU are compatible with the provided mounting hardware.

4.1 Prepare the Radiator and Fans

1. Attach the two 120mm fans to the radiator using the longer fan screws. Ensure the fan airflow direction is appropriate for your case (typically blowing air through the radiator and out of the case).

Image: The Zalman Alpha2 RGB 240mm AIO Liquid Cooler with its two fans mounted on the radiator, ready for installation into a PC case.

4.2 Install the Radiator

1. Identify a suitable mounting location in your PC case (e.g., top, front, or rear panel) that supports a 240mm radiator.
2. Secure the radiator to the case using the shorter radiator mounting screws.

4.3 Prepare the CPU Socket

1. For Intel sockets, install the appropriate backplate behind the motherboard. For AMD sockets, use the stock AMD backplate.
2. Attach the correct standoffs to the motherboard's CPU socket mounting holes.
3. If thermal paste is not pre-applied to the cold plate, apply a small pea-sized amount to the center of your CPU's Integrated Heat Spreader (IHS).

4.4 Install the Pump/Cold Plate

1. Align the pump block with the standoffs on the motherboard.
2. Place the appropriate mounting bracket over the pump block and secure it with the thumb screws or nuts provided, tightening them in a diagonal pattern until snug. Do not overtighten.

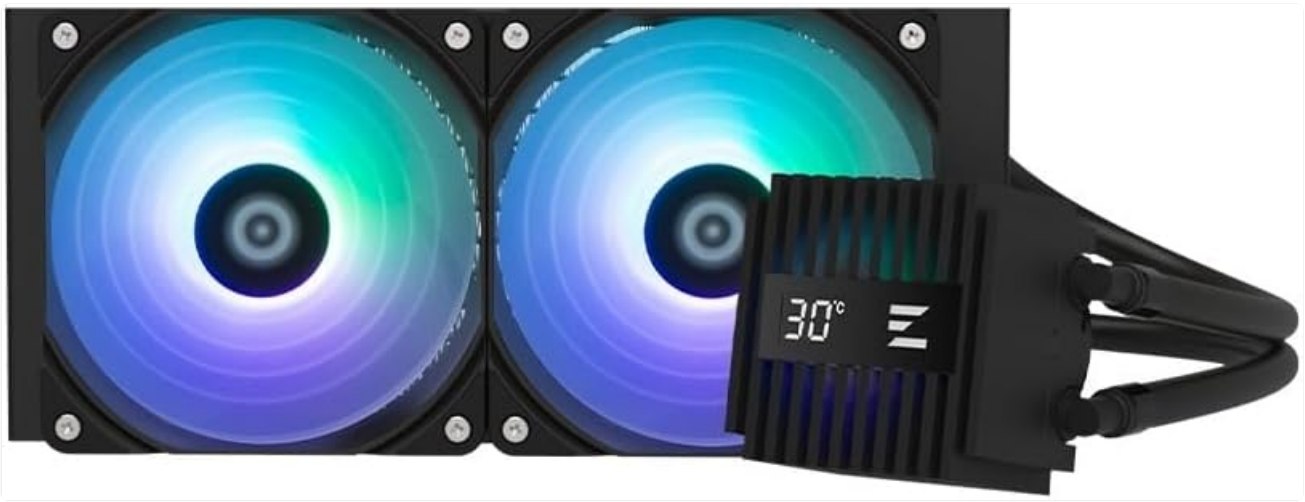

Image: The Zalman Alpha2 RGB 240mm AIO Liquid Cooler, showing the pump block with its flexible tubing and a temperature reading of 30 degrees Celsius, ready for CPU mounting.

4.5 Connect Cables

- Connect the pump's 3-pin or 4-pin power cable to the motherboard's CPU_FAN or AIO_PUMP header.
- Connect the fan power cables to available fan headers on your motherboard or to a fan controller.
- Connect the RGB cables from the fans and pump to the included RGB controller or directly to your motherboard's 5V ARGB header (if supported). Refer to your motherboard manual for specific header locations.

5. Operating Instructions

Once installed and powered on, the Zalman Alpha2 RGB cooler will automatically begin cooling your CPU. The integrated display on the pump block will show the current coolant temperature.

- **Temperature Display:** The digital display on the pump block provides real-time coolant temperature readings. This helps monitor the efficiency of your cooling system.
- **RGB Lighting Control:** If connected to a motherboard's ARGB header, you can control the lighting effects using your motherboard's RGB software (e.g., ASUS Aura Sync, MSI Mystic Light, Gigabyte RGB Fusion, ASRock Polychrome Sync). If using a dedicated RGB controller, refer to its specific instructions for lighting adjustments.

Image: The Zalman Alpha2 RGB 240mm AIO Liquid Cooler showcasing its dynamic RGB lighting on both fans and the pump, with the temperature display clearly visible at 34 degrees Celsius.

6. Maintenance

Regular maintenance helps ensure optimal performance and extends the lifespan of your AIO cooler.

- **Dust Removal:** Periodically clean dust from the radiator fins and fan blades using compressed air or a soft brush. Ensure the fans are not spinning during cleaning.
- **Cable Management:** Check that all cables are securely connected and not interfering with fan rotation or other components.
- **Leak Inspection:** While AIO coolers are sealed, it's good practice to occasionally inspect the tubing and connections for any signs of leakage, especially after moving the system.
- **Thermal Paste:** The thermal paste applied to the CPU cold plate typically lasts for several years. If you notice a significant increase in CPU temperatures over time, consider reapplying fresh thermal paste.

7. Troubleshooting

Problem	Possible Cause	Solution
Fans or Pump not spinning/no power	Loose power connection; incorrect header connection; faulty component.	Check all power cables (SATA, fan headers, pump header). Ensure pump is connected to CPU_FAN or AIO_PUMP header. Test components if possible.
High CPU temperatures	Improper cold plate contact; insufficient thermal paste; radiator/fans clogged with dust; pump failure.	Re-seat the pump block, ensuring even pressure. Reapply thermal paste. Clean radiator and fans. Check if pump is running (listen for faint hum, feel for vibration).
RGB lighting not working	Incorrect RGB header connection (e.g., 12V RGB instead of 5V ARGB); software issue; faulty RGB component.	Ensure RGB cables are connected to a 5V ARGB header on the motherboard. Check motherboard RGB software settings. Verify connections to any external RGB controller.

Problem	Possible Cause	Solution
Unusual noises (gurgling, grinding)	Air bubbles in the loop (gurgling); fan bearing issue (grinding).	Gurgling usually subsides after some operation. Try gently tilting the PC case to help move air bubbles. If grinding, identify the source (fan or pump) and consider replacement if persistent.

8. Specifications

Feature	Detail
Model Name	ALPHA2 A24 Black
Radiator Size	240mm
Fan Size	2 x 120mm
Noise Level	29.7 dB (as per specifications)
Voltage	12 Volts
Material	Acrylic (for certain components, likely pump top)
Product Dimensions	10 x 5 x 1.27 cm (Pump/Block); Radiator dimensions not specified but implied by 240mm
Weight	2.05 kg
Compatible Sockets	Intel: LGA1700, LGA1200, LGA115X, LGA2011/2066 AMD: AM5, AM4, AM3+, FM2+

9. Warranty and Support

Zalman products are manufactured to the highest quality standards. This product comes with a limited warranty against defects in materials and workmanship. The specific warranty period may vary by region and retailer. Please retain your proof of purchase for warranty claims.

For technical support, troubleshooting assistance, or warranty inquiries, please visit the official Zalman website or contact your local retailer where the product was purchased. You may also find additional resources, FAQs, and driver downloads on the official Zalman support page.

Official Website: www.zalman.com