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ASUS ROG RYUO 240

ASUS ROG RYUO 240 RGB AIO Liquid CPU Cooler User Manual

Comprehensive user manual for the ASUS ROG RYUO 240 RGB AIO Liquid CPU Cooler, covering setup, operation, maintenance, troubleshooting, specifications, and warranty information.

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1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your ASUS ROG RYUO 240 RGB AIO Liquid CPU Cooler. Please read this manual thoroughly before installation and use to ensure optimal performance and longevity of your product.



Figure 1: ASUS ROG RYUO 240 RGB AIO Liquid CPU Cooler with 240mm radiator and dual fans.

2. PACKAGE CONTENTS

Verify that all items listed below are present in your product package:

- 1 x ROG RYUO 240 Liquid Cooler (Pump unit with integrated OLED panel and 240mm radiator)
- 2 x 120mm ROG Ryuo Fan Model 12
- 1 x Accessory Pack of Screws and brackets (for various CPU sockets)
- 1 x USB Cable for Software control
- Thermal compound (pre-applied on cold plate)
- 1 x Quick Start Guide (this document)



Figure 2: All components of the ASUS ROG RYUO 240 Liquid CPU Cooler.

3. SETUP AND INSTALLATION

Follow these general steps for installing your ASUS ROG RYUO 240 Liquid CPU Cooler. Refer to your motherboard manual for specific details regarding CPU socket preparation.

1. **Prepare the CPU Socket:** Install the appropriate backplate and standoffs for your CPU socket (Intel or AMD) as indicated in the accessory pack.
2. **Mount the Radiator:** Secure the 240mm radiator to an available fan mount in your PC case. Ensure proper airflow direction (intake or exhaust) based on your case's cooling design.
3. **Install the Fans:** Attach the two 120mm ROG Ryuo Fan Model 12 fans to the radiator using the provided screws.
4. **Position the Pump Head:** Carefully place the pump head onto the CPU, aligning it with the standoffs. The thermal compound is pre-applied.

5. **Secure the Pump Head:** Use the appropriate mounting brackets and thumb screws to secure the pump head firmly to the CPU socket. Do not overtighten.
6. **Connect Fan Cables:** Connect the 4-pin PWM fan cables from the fans to the fan headers on the pump unit or directly to your motherboard's CPU_FAN/CHA_FAN headers.
7. **Connect Pump Power:** Connect the pump power cable to an available AIO_PUMP or CPU_OPT header on your motherboard.
8. **Connect USB Cable:** Connect the included USB cable from the pump unit to an available internal USB 2.0 header on your motherboard. This is essential for software control of the OLED panel and RGB lighting.
9. **Cable Management:** Route all cables neatly to ensure proper airflow and a clean build.



Figure 3: ROG Ryuo Fan Model 12.

4. OPERATION AND SOFTWARE CONTROL

The ASUS ROG RYUO 240 features a 1.77" full-color OLED panel and Aura Sync addressable RGB lighting, both controllable via ASUS LiveDash software.

4.1. LiveDash Software

To fully utilize the OLED panel and RGB lighting customization, download and install the latest LiveDash software from the official ASUS support website. Ensure you also have the Aura Sync software installed for full compatibility.

- **OLED Panel Customization:** The LiveDash software allows you to display real-time system statistics (e.g., CPU temperature, fan speed), personalized logos, or custom animations on the 1.77" OLED panel. Supported image formats include GIF and JPG with a resolution of 160 x 128 pixels and a maximum size of 1 MB.
- **Aura Sync RGB Lighting:** Synchronize the cooler's RGB lighting effects with other Aura Sync-enabled components in your system for a unified aesthetic.
- **Fan Control:** Utilize the precise PWM pump and fan control features within LiveDash to optimize airflow and static pressure, balancing cooling performance with noise levels.



Figure 4: Customizable RGB lighting on the pump head.



Figure 5: The 1.77" OLED panel on the pump head.

5. MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your liquid CPU cooler.

- **Dust Removal:** Periodically clean the radiator fins and fan blades to prevent dust buildup, which can impede airflow and reduce cooling efficiency. Use compressed air or a soft brush.
- **Fan Inspection:** Check fans for any signs of wear, unusual noise, or obstructions. Ensure they are securely mounted.
- **Tubing and Connections:** Inspect the tubing for any kinks, leaks, or damage. Ensure all connections are secure.
- **Thermal Paste:** While thermal paste is pre-applied, consider reapplying it if you remove the pump head for any reason, or if you notice a significant increase in CPU temperatures over time.

6. TROUBLESHOOTING

If you encounter issues with your ASUS ROG RYUO 240, refer to the following common troubleshooting steps:

- **No Power/No RGB/OLED Display Off:**

- Ensure all power cables (pump, fans) are securely connected to the motherboard headers.
- Verify the internal USB 2.0 cable is correctly connected to both the pump unit and the motherboard.
- Check LiveDash and Aura Sync software settings to ensure RGB and OLED are enabled and configured correctly.

- **High CPU Temperatures:**

- Confirm the pump is running (you might feel a slight vibration or hear a faint hum).
- Ensure fans are spinning and correctly oriented for airflow.
- Verify the pump head is securely mounted to the CPU and making good contact.
- Check for dust buildup on the radiator fins and clean if necessary.
- Ensure LiveDash fan control settings are not set too low.

- **Unusual Noise from Cooler:**

- Identify if the noise is coming from the fans or the pump.
- If from fans, check for obstructions or loose mounting. Consider adjusting fan curves in LiveDash.
- If from the pump, ensure the pump is running at an appropriate speed. Some pump noise is normal, but excessive gurgling might indicate air in the loop (which usually resolves itself over time).

- **LiveDash Software Issues (e.g., OLED logo not changing):**

- Ensure you have downloaded and installed the latest version of LiveDash and Aura Sync software from the official ASUS support website.
- Restart the LiveDash application or your computer.
- Verify that custom images/animations meet the specified resolution (160x128 pixels) and size (1MB) requirements.
- Some games or anti-cheat software may conflict with LiveDash. Try exiting LiveDash before launching such applications if you experience issues.

7. SPECIFICATIONS

Feature	Detail
Brand	ASUS
Model	ROG RYUO 240

Feature	Detail
Product Dimensions	9"L x 1.89"W x 9"H
Cooling Method	Water
Radiator Size	240mm
Fan Size	Dual 120mm (ROG Ryuo Fan Model 12)
Maximum Rotational Speed	2442 RPM
Air Flow Capacity	81 CFM
Noise Level	37.6 Decibels
OLED Panel	1.77" Full-color OLED
RGB Lighting	Aura Sync Addressable RGB
Power Connector Type	4-pin PWM
Voltage	12 Volts
Wattage	60W
Material	Copper Aluminum
Compatible Devices	AMD: AM4, TR4*

**Note: TR4 socket mounting requires a separate bracket, often included with TR4 CPUs.*

8. WARRANTY INFORMATION

The ASUS ROG RYUO 240 RGB AIO Liquid CPU Cooler comes with a **3-Year Warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. For detailed terms and conditions, please refer to the official ASUS warranty policy available on their website.

Keep your proof of purchase for warranty claims.

9. SUPPORT

For the latest drivers, utilities, FAQs, and product support, please visit the official ASUS support website:

[ASUS ROG RYUO 240 Support Page](#)

You can also contact ASUS customer service for further assistance.

