be quiet! Pure Loop 2 FX 240mm (BW013)

be quiet! Pure Loop 2 FX 240mm CPU Liquid Cooler User Manual

Model: Pure Loop 2 FX 240mm (BW013)

Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your be quiet! Pure Loop 2 FX 240mm CPU Liquid Cooler. Please read this manual thoroughly before beginning installation to ensure proper setup and optimal performance. This All-in-One (AIO) liquid cooling unit is designed to provide efficient cooling for mainstream Intel and AMD CPUs, featuring ARGB LED illumination and quiet operation.



Image: be quiet! Pure Loop 2 FX product banner.

Safety Instructions

- Always disconnect power from your computer before installing or performing maintenance on any components.
- Handle components with care to avoid damage. Avoid touching electrical contacts.
- Ensure proper grounding to prevent electrostatic discharge (ESD) damage.
- Keep the product away from moisture and extreme temperatures.
- Do not open the pump or radiator unit, as this may void the warranty and cause leaks.
- Only use the provided coolant for refilling. Do not mix with other liquids.
- Keep out of reach of children.

Package Contents

Verify that all components are present before beginning installation:

- Pure Loop 2 FX 240mm All-in-One Liquid Cooler (Radiator, Pump, Tubing)
- 2x Light Wings 120mm PWM high-speed fans
- ARGB-PWM-Hub
- Mounting hardware for Intel (LGA 1700 / 1200 / 2066 / 1150 / 1151 / 1155 / 2011(-3) Square ILM)
- Mounting hardware for AMD (AM5 / AM4)
- Coolant bottle for refilling
- Thermal paste (pre-applied or in a syringe)
- User Manual (this document)



Image: All components included with the Pure Loop 2 FX 240mm cooler, including the radiator, fans, pump, mounting hardware, coolant, and thermal paste.

Setup and Installation

Follow these general steps for installing the Pure Loop 2 FX 240mm liquid cooler. Specific details may vary based on your motherboard and PC case.

1. Prepare the Radiator and Fans

1. Attach the two Light Wings 120mm PWM high-speed fans to the radiator using the provided long screws. Ensure the fan airflow direction is appropriate for your case (intake or exhaust).
2. Connect the fan cables to the ARGB-PWM-Hub.



Image: The Pure Loop 2 FX radiator, showing its fin structure and connection points.

2. Install the CPU Mounting Bracket

- **For Intel Sockets (1700 / 1200 / 2066 / 1150 / 1151 / 1155 / 2011(-3) Square ILM):** Use the appropriate backplate and standoffs for your specific socket. Secure the standoffs to the motherboard.
- **For AMD Sockets (AM5 / AM4):** Utilize the motherboard's existing backplate. Attach the AMD mounting clips to the pump unit and secure them to the motherboard's retention brackets.

3. Mount the Pump/Cold Plate

1. Ensure the CPU surface is clean. If thermal paste is not pre-applied, apply a small amount to the center of the CPU.
2. Carefully place the pump/cold plate assembly onto the CPU, aligning it with the mounting holes or clips.
3. Secure the pump to the mounting bracket using the provided screws, tightening them in a cross pattern until snug. Do not overtighten.
4. Connect the pump's 3-pin power cable to the dedicated AIO_PUMP or CPU_FAN header on your motherboard.



Image: The pump/CPU block of the Pure Loop 2 FX, showcasing its ARGB illumination.

4. Install the Radiator in the PC Case

1. Mount the radiator with attached fans to an available fan mounting location in your PC case (e.g., top, front). Use the appropriate screws.
2. Ensure tubing is not kinked or excessively bent.



Image: The Pure Loop 2 FX 240mm cooler installed within a computer case, demonstrating its fit and ARGB lighting.

5. Connect ARGB and PWM Cables

1. Connect the ARGB-PWM-Hub to a 5V 3-pin ARGB header on your motherboard for illumination control.
2. Connect the ARGB-PWM-Hub to a PWM fan header on your motherboard for fan speed control.
3. Ensure all cables are routed neatly and do not interfere with other components or airflow.

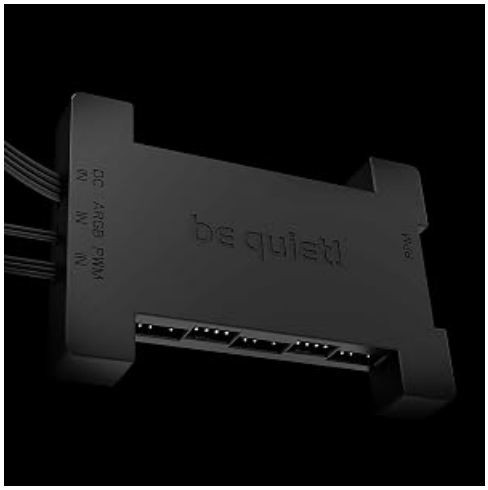


Image: The ARGB-PWM-Hub, which allows synchronization of up to 6 ARGB components and PWM fans.

Operation

Once installed, the Pure Loop 2 FX 240mm operates automatically based on your motherboard's fan and pump control settings.

- **Fan Control:** The Light Wings PWM fans are connected to the ARGB-PWM-Hub, which in turn connects to a motherboard PWM header. You can adjust fan curves via your motherboard's BIOS/UEFI settings or dedicated software to optimize for cooling performance and noise levels.
- **Pump Operation:** The pump operates continuously to circulate coolant. It features a doubly decoupled design for quiet operation and minimal vibration. Ensure the pump is always receiving power.
- **ARGB Illumination:** The ARGB LEDs on the fans and pump can be controlled via your motherboard's ARGB software (e.g., ASUS Aura Sync, MSI Mystic Light, Gigabyte RGB Fusion, ASRock Polychrome Sync) or a compatible external ARGB controller connected to the ARGB-PWM-Hub.

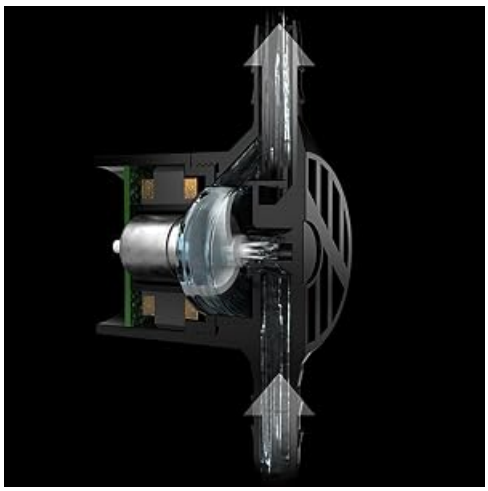


Image: An internal diagram illustrating the pump mechanism, highlighting its quiet operation design.

Maintenance

Regular maintenance helps ensure the longevity and optimal performance of your liquid cooler.

- **Dust Cleaning:** Periodically clean dust from the radiator fins and fan blades using compressed air or a soft brush. Ensure fans are not spinning during cleaning.
- **Coolant Refill:** The Pure Loop 2 FX features an easy-to-access refill port on the radiator. Over time, a small amount of coolant may evaporate. Use the included coolant bottle to top up the system as needed. Refer to the refill port image for location.
- **Inspection:** Regularly inspect tubing for any signs of wear, kinks, or leaks. Check all connections to ensure they are secure.

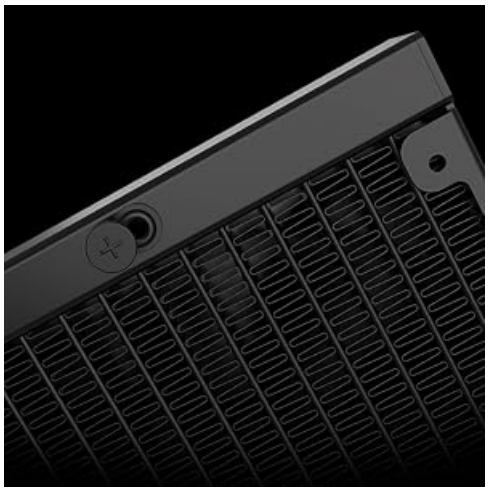


Image: A close-up view of the refill port located on the radiator, designed for easy coolant top-ups.

Troubleshooting

If you encounter issues with your Pure Loop 2 FX 240mm cooler, consider the following:

- **High CPU Temperatures:**
  - Ensure the pump is running and connected correctly to a power source.
  - Verify fans are spinning and installed with correct airflow direction.
  - Check if the cold plate is making proper contact with the CPU. Re-seat if necessary, ensuring thermal paste is adequately applied.
  - Inspect the radiator for dust buildup and clean if necessary.
- **Unusual Noise:**
  - **Pump Noise:** While designed for quiet operation, some minimal pump hum may be audible at high RPMs. Ensure the pump is not running dry (check coolant level).
  - **Fan Noise:** Adjust fan curves in BIOS/UEFI to reduce fan speed if noise is excessive. Check for obstructions or loose fan screws.
  - **Gurgling Sounds:** This may indicate air bubbles in the loop. Gently tilt your PC case while running to help move air bubbles to the radiator. Ensure the radiator is mounted higher than the pump if possible.
- **ARGB Lighting Not Working:**
  - Verify the ARGB-PWM-Hub is correctly connected to a 5V 3-pin ARGB header on your motherboard.
  - Check your motherboard's ARGB software for proper configuration.
  - Ensure all ARGB cables are securely connected.

Specifications

Feature	Specification
Model Number	BW013
Radiator Size	240mm
Product Dimensions (L x W x H)	10.91" x 4.72" x 2.05" (27.71cm x 11.99cm x 5.21cm)
Weight	2.6 Pounds (1.18 kg)
Cooling Method	Liquid
Fan Type	2x Light Wings 120mm PWM high-speed
Maximum Fan Rotational Speed	1800 RPM
Noise Level	25 Decibels (at max fan speed)
Power Connector Type	4-Pin (PWM for fans), 3-Pin (Pump), 5V 3-Pin ARGB
Voltage	5 Volts (ARGB)
Wattage	5.4 watts
Material	Aluminum (Radiator)
Compatible Devices	Desktop PCs
Intel Socket Compatibility	1700 / 1200 / 2066 / 1150 / 1151 / 1155 / 2011(-3) Square ILM
AMD Socket Compatibility	AM5 / AM4

Warranty and Support

be quiet! products are manufactured to the highest quality standards. For warranty information and technical support, please refer to the official be quiet! website or contact their customer service directly.
Manufacturer: BeQuiet!
For further assistance, visit the official be quiet! Store on Amazon.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question