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Model: Liquid Freezer II 240 | Brand: ARCTIC

1. INTRODUCTION AND OVERVIEW

The ARCTIC Liquid Freezer II 240 is a multi-compatible all-in-one CPU water cooler designed for efficient thermal management of your processor. This manual provides essential information for proper installation, operation, and maintenance of your cooler.

Key Features:

- **Quality Control Approved:** Products undergo additional testing and are marked with a QC sticker.
- **LGA1700 Compatibility:** Compatible with Intel's new Alder Lake processors and Socket LGA1700.
- **Efficient Cooling:** Features an optimized cool plate, pump, and radiator for superior performance compared to other AIO water coolers.
- **VRM Fan:** An additional 40 mm PWM-controlled fan next to the pump provides extra cooling for the voltage regulator modules (VRM), potentially lowering temperatures by up to 15°C.
- **Integrated Cable Management:** PWM cables for the fans are integrated into the sleeved tubing, reducing cable clutter.



Figure 1: The ARCTIC Liquid Freezer II 240 AIO Water Cooler unit.

2. SETUP AND INSTALLATION

2.1 Components Included:

- ARCTIC Liquid Freezer II 240 Unit (Radiator, Fans, Pump/Cold Plate with VRM Fan, Tubing)
- Mounting Clips (for Intel & AMD)
- Backplate (for Intel)
- Spacers (for AMD)
- Screws (for Radiator, Mounting Clips, AMD Socket)
- Flat Washers (for Radiator)
- Thumb Nuts
- Washers (for Backplate)
- ARCTIC MX-4 Thermal Paste (0.8g)

2.2 Pre-Installation Checklist:

- Verify all components listed above are present.
- Ensure your motherboard is compatible with the cooler (Intel Sockets: 1700, 1200, 115X, 2011-3*, 2066**Square ILM; AMD Sockets: AM5, AM4).
- Consult your motherboard manual for CPU cooler installation guidelines.

2.3 General Installation Steps:

1. Prepare your CPU socket by removing any existing cooler and cleaning the CPU surface.
2. Apply the provided ARCTIC MX-4 thermal paste to the center of your CPU.
3. Attach the appropriate mounting hardware (backplate, standoffs, mounting clips) to your motherboard and the pump/cold plate unit.
4. Carefully place the pump/cold plate unit onto the CPU and secure it with thumb nuts or screws.
5. Mount the radiator to an available fan mounting location in your PC case (e.g., top, front).
6. Connect the single PWM cable from the pump unit to your motherboard's CPU_FAN header.

2.4 Intel Socket 115X/1700 Installation Guide:

For a detailed visual guide on installing the ARCTIC Liquid Freezer II 240 on Intel 115X/1700 sockets, please refer to the official installation video below.

Your browser does not support the video tag.

Video 1: Official ARCTIC installation guide for Liquid Freezer II 240/280 on Intel 115X sockets. This video demonstrates step-by-step how to prepare the motherboard, attach the backplate and mounting hardware, apply thermal paste, and secure the pump unit and radiator.

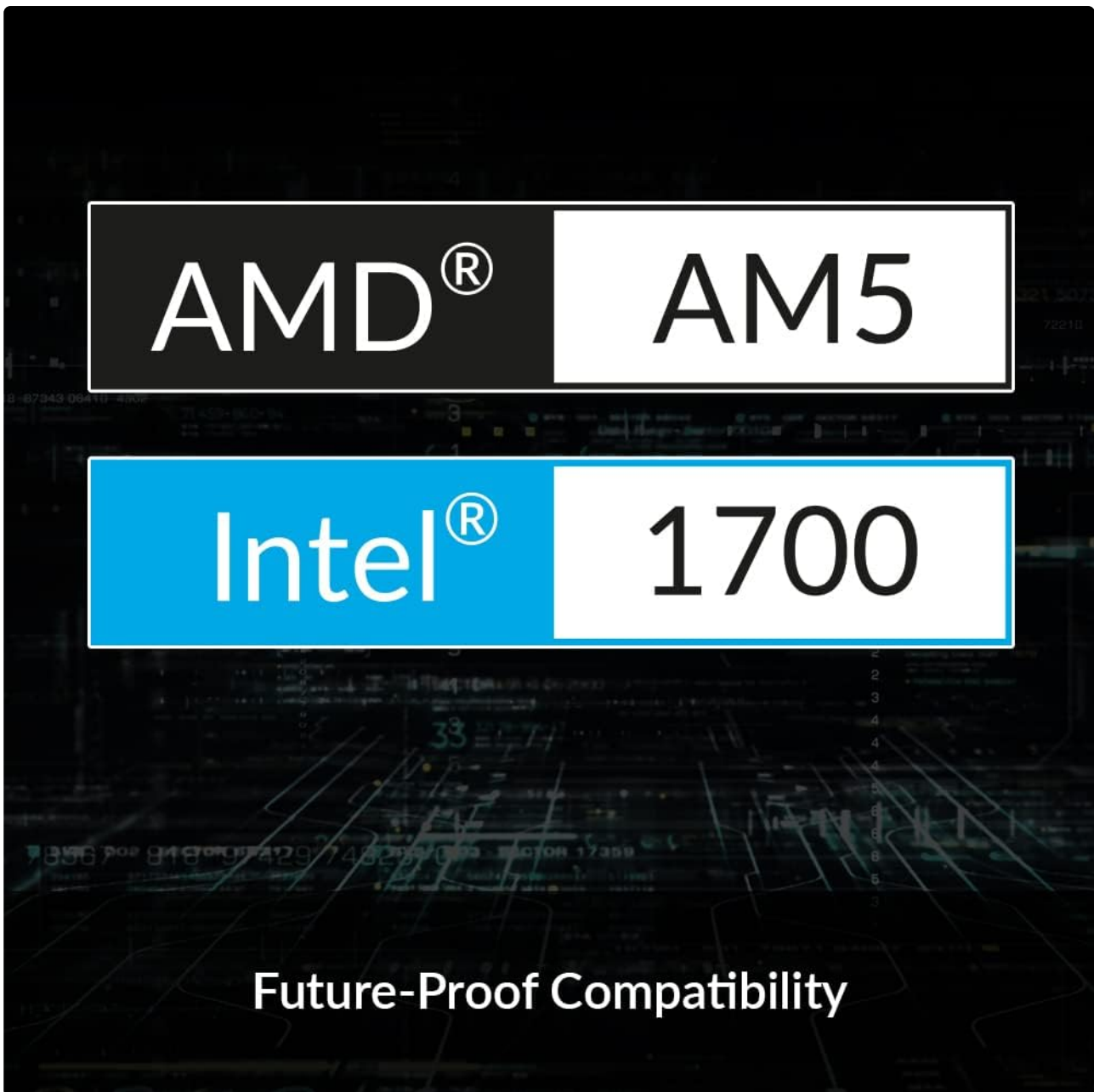


Figure 2: The ARCTIC Liquid Freezer II 240 pump unit installed on an Intel motherboard, showing the integrated cabling.

2.5 AMD Socket AM4/AM5 Installation Guide:

For a detailed visual guide on installing the ARCTIC Liquid Freezer II 240 on AMD AM4/AM5 sockets, please refer to the official installation video below.

Your browser does not support the video tag.

Video 2: Official ARCTIC installation guide for Liquid Freezer II 240/280 on AMD AM4 sockets. This video demonstrates the process of removing existing retention brackets, installing AMD-specific spacers and mounting clips, applying thermal paste, and securing the pump unit and radiator.

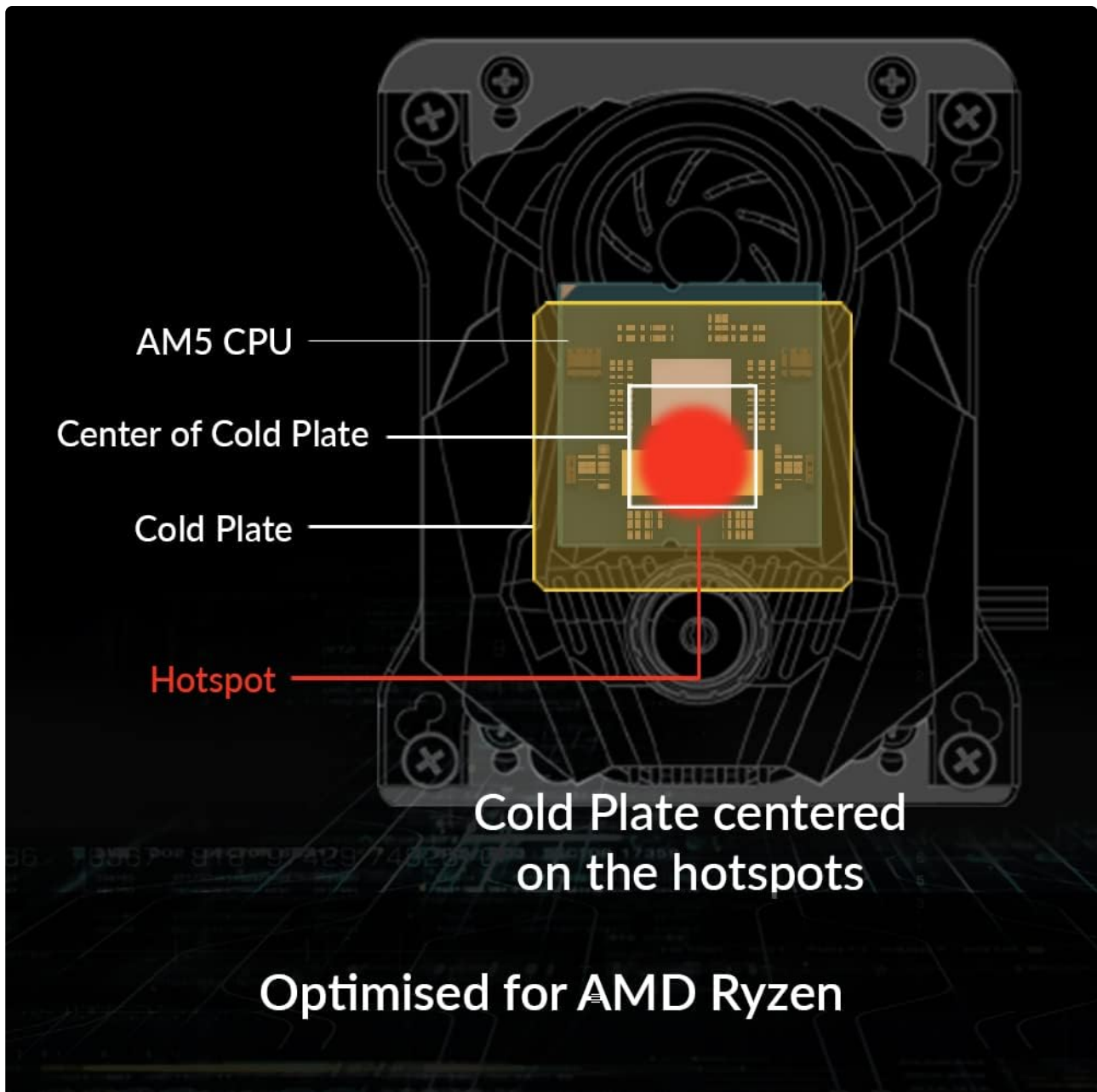


Figure 3: The ARCTIC Liquid Freezer II 240 pump unit installed on an AMD motherboard, highlighting the VRM fan.

3. OPERATING INSTRUCTIONS

The ARCTIC Liquid Freezer II 240 is designed for optimal performance with minimal user intervention after installation. The pump and fans are PWM controlled, meaning their speed will automatically adjust based on CPU temperature, ensuring efficient cooling and quiet operation.

- **Automatic Speed Control:** The single PWM cable connected to your motherboard's CPU_FAN header allows the motherboard to control both the pump and fan speeds dynamically.
- **VRM Fan Operation:** The integrated 40 mm VRM fan operates in conjunction with the main pump, providing additional airflow to the voltage regulator modules to keep them cool.
- **Noise Level:** The cooler is designed for low noise operation, with a specified noise level of 0.3 Sones.

4. MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your ARCTIC Liquid Freezer II 240.

- **Dust Cleaning:** 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.
- **Tubing Inspection:** Occasionally inspect the tubing for any signs of wear or damage. While the system is sealed and maintenance-free, visual checks are recommended.
- **Thermal Paste:** The pre-applied thermal paste is designed for long-term use. Reapplication is generally not necessary unless the cooler is removed from the CPU.

5. TROUBLESHOOTING

If you encounter issues with your ARCTIC Liquid Freezer II 240, consider the following basic troubleshooting steps:

- **High CPU Temperatures:**
 - Ensure the pump and fans are spinning. Check cable connections.
 - Verify the cold plate is making proper contact with the CPU. Re-seat the cooler if necessary, reapplying thermal paste.
 - Check for dust buildup on the radiator fins and clean if necessary.
- **Unusual Noise:**
 - Identify the source of the noise (fans, pump, or VRM fan).
 - Ensure no cables are obstructing fan blades.
 - If the noise persists and is disruptive, contact ARCTIC support.
- **No Power/Lights:**
 - Confirm the PWM cable is securely connected to the motherboard's CPU_FAN header.
 - Check motherboard BIOS settings to ensure the CPU_FAN header is enabled and configured correctly.

For more advanced troubleshooting or persistent issues, please visit the ARCTIC support website.

6. SPECIFICATIONS

Feature	Specification
Product Dimensions	10.91"L x 4.72"W x 1.5"H (277mm x 120mm x 38mm)
Brand	ARCTIC
Power Connector Type	4-Pin PWM
Voltage	12 Volts
Cooling Method	Water
Compatible Devices	Intel Sockets: 1700, 1200, 1150, 1151, 1155, 1156, 2011(-3), 2066; AMD Sockets: AM5, AM4
Noise Level	0.3 Sones
Material	Aluminum, Copper, Rubber
Maximum Rotational Speed	1800 RPM (Fans)
Air Flow Capacity	55.6 CFM
Item Weight	1191 Grams
Unit Count	1.0 Count

7. WARRANTY AND SUPPORT

The ARCTIC Liquid Freezer II 240 comes with a **6-year warranty**, ensuring long-term reliability and peace of mind.

For product support, technical assistance, or warranty claims, please visit the official ARCTIC website or their dedicated support pages.

Official ARCTIC Store: [ARCTIC Store on Amazon](#)