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› Thermalright Frozen Notte 240 BLACK ARGB CPU Liquid Cooler User Manual

## Thermalright Frozen Notte 240 BLACK ARGB

# Thermalright Frozen Notte 240 BLACK ARGB CPU Liquid Cooler User Manual

Model: Frozen Notte 240 BLACK ARGB

## INTRODUCTION

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The Thermalright Frozen Notte 240 BLACK ARGB is an all-in-one (AIO) liquid CPU cooler designed for efficient heat dissipation. It features a full-copper mirror flat base on the water block, a 240mm aluminum fin radiator, and polymer-protected water pipes. Equipped with 120mm ARGB fans, this cooler offers low resistance, high cooling performance, low evaporation, and extended lifespan. It is compatible with a wide range of Intel and AMD CPU sockets.



Image: The Thermalright Frozen Notte 240 BLACK ARGB CPU Liquid Cooler, showcasing its dual ARGB fans and illuminated pump head within a computer case.

## PACKAGE CONTENTS

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Before installation, ensure all components are present in the package:



## FROZEN NOTTE 240 BLACK ARGB 仕様

ヒートシンク	仕様	TL-E12B-S	仕様
水ブロック次元	72mm * 72mm * 54mm	ファン寸法	120mm * 120mm * 25mm
ラジエーター次元	277mm * 120mm * 27mm	ファン定格速度	2000RPM±10%
水ポンプの騒音	≤28dBA	ファン定格ノイズ	≤27.7dBA
水ポンプの速度	5300RPM±10%	ファンの気流	72.37CFM(MAX)
ポンプ定格電流	0.12±20%A	ファン静圧	2.87mm/H <sub>2</sub> O(MAX)
ポンプ定格電力	≤1.5W	ファンコネクタ	4PIN PWM
ポンプ軸受け	セラミックベアリング	ファン定格電圧	12V DC
ポンプカ	+12V DC 3PIN	ファンの評価される流れ	0.18A(MAX)
ポンプ照明ポート	+5V 3PIN ARGB	ファンベアリングタイプ	S-FDBベアリングV2
ポンプ寿命	40000hrs	照明ポート	+5V 3PIN ARGB

Image: Detailed view of the Thermalright Frozen Notte 240 BLACK ARGB cooler and its included accessories, such as mounting brackets, screws, thermal compound, and fan splitter cable.

- Radiator with two 120mm ARGB PWM Fans (TL-E12B-S)
- CPU Water Block with integrated pump
- Intel Backplate (for LGA 115X/17XX)
- AMD Bracket
- Intel Bracket
- Plastic Standoffs (17XX and 15XX sizes)
- Intel Nuts
- Radiator Mounting Screws
- LGA20XX Screws
- Thermal Compound
- Fan Splitter Cable

## SETUP AND INSTALLATION

This section provides general installation guidelines. Specific steps may vary slightly depending on your motherboard and CPU socket type. Always refer to your motherboard manual for additional guidance.

### 1. Prepare the CPU Socket

For Intel LGA 1700/1851 sockets, install the appropriate backplate and standoffs. For AMD AM4/AM5 sockets, use the motherboard's original backplate and the provided AMD brackets.

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Video: Installation guide for AMD CPU sockets (AM4/AM5).

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Video: General installation guide for AE240/360 series, applicable to this model.

## 2. Apply Thermal Compound

Apply a small amount of the included thermal compound to the center of your CPU's Integrated Heat Spreader (IHS). This ensures optimal heat transfer between the CPU and the cooler's cold plate.



Image: The CPU water block, featuring a mirror finish and addressable RGB lighting, ready for installation.

## 3. Mount the Water Block

Carefully place the water block onto the CPU, aligning it with the mounting holes. Secure it with the appropriate nuts, tightening them in a diagonal pattern to ensure even pressure. Do not overtighten.

## 4. Install the Radiator and Fans

Mount the radiator to an available fan slot in your PC case (e.g., top or front). The fans are pre-installed on the radiator. Ensure proper airflow direction (intake or exhaust) based on your case's cooling strategy.



# FROZEN NOTTE 240 BLACK ARGB V2

高性能CPUウォータークーラー



Image: Top view of the Thermalright Frozen Notte 240 BLACK ARGB cooler, showing the radiator and fans.

## Intel:

LGA115X/1200/2011  
/2066/1700

## AMD:

AM4/AM5/FM1/FM2/FM2+  
AM2/AM2+/AM3/AM3+



ラジエーターの中の特別な設計水路は低水の抵抗およびより高い流動度を可能にしま、よりよい冷却の性能を起因します。



水管は低い液体の蒸発のためのポリマー袖によって、更に拡張します全オールインワン液体のクーラーの寿命を保護されます。

Image: Side view of the Thermalright Frozen Notte 240 BLACK ARGB cooler, highlighting the tubing and pump.

## 5. Connect Cables

Connect the fan PWM cables to the CPU\_FAN header or a dedicated fan header on your motherboard using the splitter cable if necessary. Connect the ARGB cables to a 5V 3-pin ARGB header on your motherboard. The pump power cable should be connected to a dedicated AIO\_PUMP or CPU\_OPT header, or a standard fan header configured for full speed.

# デザインを中心としたパフォーマンス



高性能の水ポンプは最適振動制御およびよりよい冷却剤の流動度のためのゴム製管にある。TL-E12B-S の高い静圧ファンを組み合わせる完全な銅の冷たい版および大きい表面積のラジエーターの余分マイクロひれを使って。Thermalright FROZEN NOTTE AIO液体クーラーは、Cpuを冷却するための最新の方法でパックされています

Image: Close-up of the 4-pin PWM and 3-pin ARGB connectors for the fans and pump, indicating where they connect to the motherboard.

## OPERATING INSTRUCTIONS

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Once installed, the cooler operates automatically. The PWM fans adjust their speed based on CPU temperature, providing optimal cooling and noise levels. The ARGB lighting can be controlled via your motherboard's RGB software or a dedicated ARGB controller (not included).

- **Fan Control:** The TL-E12B-S fans operate via 4-pin PWM, allowing the motherboard to dynamically adjust fan speed (up to 2000 RPM  $\pm$ 10%) based on CPU load and temperature.
- **Pump Operation:** The water pump operates at a speed of 5300 RPM  $\pm$ 10%, ensuring efficient coolant circulation.
- **ARGB Lighting:** The addressable RGB lighting on the fans and pump head can be synchronized with other ARGB components in your system using compatible motherboard software.

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Video: TRCC Software Installation and usage for controlling the cooler's features.

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Video: A short preview demonstrating the cooler's ARGB lighting effects.

## MAINTENANCE

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

- **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.
- **Inspect Tubing:** Occasionally check the coolant tubes for any signs of kinks, leaks, or damage.
- **Pump Noise:** Listen for unusual noises from the pump. A consistent grinding or gurgling sound might indicate an issue.

- **Thermal Paste:** While not frequently required, reapplying thermal paste every few years can help maintain optimal thermal conductivity.

## TROUBLESHOOTING

If you encounter issues with your cooler, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
High CPU Temperatures	<ul style="list-style-type: none"> <li>• Insufficient thermal paste application.</li> <li>• Radiator or fans clogged with dust.</li> <li>• Fans not spinning or spinning too slowly.</li> <li>• Pump not functioning.</li> </ul>	<ul style="list-style-type: none"> <li>• Reapply thermal paste.</li> <li>• Clean radiator and fans.</li> <li>• Check fan connections and BIOS settings.</li> <li>• Ensure pump is powered and connected correctly.</li> </ul>
Fans or Pump ARGB Not Lighting Up	<ul style="list-style-type: none"> <li>• Incorrect ARGB cable connection.</li> <li>• Motherboard ARGB header not enabled or configured.</li> <li>• Software issue.</li> </ul>	<ul style="list-style-type: none"> <li>• Verify 5V 3-pin ARGB connection to motherboard.</li> <li>• Check motherboard BIOS/UEFI settings for ARGB control.</li> <li>• Install or update motherboard's RGB control software.</li> </ul>
Excessive Fan Noise	<ul style="list-style-type: none"> <li>• Fans spinning at maximum RPM.</li> <li>• Loose fan mounting screws.</li> <li>• Dust buildup on fan blades.</li> </ul>	<ul style="list-style-type: none"> <li>• Adjust fan curves in BIOS or fan control software.</li> <li>• Ensure fans are securely mounted.</li> <li>• Clean fan blades.</li> </ul>

## SPECIFICATIONS

Detailed specifications for the Thermalright Frozen Notte 240 BLACK ARGB CPU Liquid Cooler:

Component	Specification
Radiator Dimensions (L x W x H)	277mm x 120mm x 27mm
Water Block Dimensions	72mm x 72mm x 54mm
Pump Speed	5300 RPM $\pm$ 10%
Pump Voltage	12V DC
Pump Power Consumption	1.5W
Pump Bearing	Ceramic Bearing
Pump Life Expectancy	40000 hours
Fan Model	TL-E12B-S
Fan Dimensions	120mm x 120mm x 25mm

Component	Specification
Fan Speed	2000 RPM $\pm$ 10%
Fan Noise Level	$\leq$ 27.7 dBA
Fan Airflow	72.37 CFM (MAX)
Fan Air Pressure	2.87 mmH <sub>2</sub> O (MAX)
Fan Connector	4-pin PWM
Fan Bearing Type	S-FDB Bearing V2
ARGB Lighting Connector	+5V 3-pin ARGB
Compatibility	Intel: LGA 1150/1151/1155/1156/1200/1700/1851/2011/2066; AMD: AM4/AM5/AM2/AM2+/AM3/AM3+/FM1/FM2/FM2+
Material	Aluminum (radiator), Copper (cold plate)

## WARRANTY AND SUPPORT

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Thermalright products are designed for reliability and performance. For warranty information and technical support, please refer to the official Thermalright website or contact your local retailer. Keep your proof of purchase for warranty claims. For further assistance, you may visit the Thermalright support page or contact their customer service.

