

Thermalright CORE VISION 360 Black

Thermalright CORE Vision 360 Black AIO CPU Liquid Cooler User Manual

Model: CORE VISION 360 Black
Brand: Thermalright

1. INTRODUCTION

The Thermalright CORE Vision 360 Black is an all-in-one (AIO) CPU liquid cooler designed to provide efficient thermal management for high-performance computing systems. It features a 360mm radiator, three high-cooling fans, and an integrated 2.1-inch IPS LCD screen for real-time system monitoring and customizable displays. This manual provides essential information for proper installation, operation, and maintenance of your liquid cooler.



Image 1.1: Thermalright CORE Vision 360 Black AIO CPU Liquid Cooler components.

2. WHAT'S IN THE BOX

Verify that all components are present before beginning installation:

- Liquid CPU Cooler (Radiator, Pump/Waterblock with LCD, and Fans pre-installed)
- Mounting Hardware for AMD (AM4/AM5)
- Mounting Hardware for Intel (LGA1150/1151/1155/1156/1200/2011/2066/1700/1851)
- PWM Fan Splitter Cable
- ARGB 3-pin Sync Cable
- USB Data Cable (Type-C to USB 2.0 header)
- Thermal Compound

3. SPECIFICATIONS

Feature	Specification
Water-cooled Radiator Size	397mm x 120mm x 52mm
Cold Header Dimensions	69.2mm x 69.2mm x 66mm
Voltage	DC 12V
Lighting Connector	5V 3pin ARGB
Power Supply Connector	4PIN PWM
Fan Running Noise	≤27.7dBA
Fan Speed	2150RPM ±10%
Display Type	2.1 inch IPS LCD Screen
Display Resolution	480 x 480
Display Brightness	450 NITS peak brightness
Compatibility (AMD)	AM4/AM5
Compatibility (Intel)	LGA1150/1151/1155/1156/1200/2011/2066/1700/1851
Cooling Method	Water
Material	Aluminum
Air Flow Capacity	69 CFM
Item Weight	5.9 pounds
Product Dimensions	15.63 x 4.72 x 1.06 inches

4. SETUP AND INSTALLATION

Please refer to the detailed installation video below for a visual guide. The steps provided here are a summary.

Your browser does not support the video tag.

Video 4.1: Detailed installation guide for the Thermalright CORE Vision series CPU liquid cooler, covering both AMD and Intel platforms.

4.1. Prepare Motherboard

For AMD AM5/AM4 Motherboards:

1. Remove the motherboard's plastic CPU cooler retention brackets. Keep the original backplate in place.
2. Install the four red standoffs into the motherboard's CPU cooler mounting holes.
3. Place the two metal brackets (marked 'AM4' or 'AM5') onto the standoffs.
4. Secure the metal brackets with the provided screws using a screwdriver.

For Intel LGA1700 Motherboards:

1. Adjust the mounting hole position on the universal backplate to '1700'.
2. Install the backplate from the backside of the motherboard.
3. Install the four 1700 standoffs onto the backplate screws from the front side of the motherboard.
4. Place the two Intel brackets onto the standoffs, ensuring the backplate screws pass through the LGA1700 holes on the brackets.
5. Secure the brackets with the provided nuts.

4.2. Install Waterblock and Radiator

1. Apply the provided thermal compound to the CPU's Integrated Heat Spreader (IHS).
2. Remove the protective sticker from the waterblock's coldplate.
3. Carefully place the waterblock onto the CPU, aligning the waterblock bracket nuts with the screws on the installed motherboard brackets.
4. Tighten both screws on the waterblock bracket with a screwdriver to apply even mounting pressure. Tighten in a diagonal pattern until snug.
5. Mount the 360mm radiator to an available fan mounting location in your PC case (e.g., top, front). Ensure proper airflow direction.




Image 4.1: Installed Thermalright CORE Vision 360 Black AIO CPU Liquid Cooler.

4.3. Cable Connections

1. Connect the waterblock pump power cable to the CPU_OPT or AIO_PUMP header on your motherboard.
2. Connect each of the three fan's 4-pin PWM headers to the provided PWM splitter cable.
3. Connect the PWM splitter cable to the motherboard's CPU_FAN header.
4. Remove the protective caps from the ARGB 3-pin connectors on the fans.
5. Connect the ARGB 3-pin connectors to sync the ARGB lighting.
6. Connect the ARGB lighting cable to the motherboard's +5V ARGB header for lighting control.
7. Connect the USB data cable (Type-C end) to the waterblock LCD and the other end (USB 2.0 header) to an available USB 2.0 header on your motherboard. This is for LCD display control and software communication.

5. OPERATING INSTRUCTIONS

Once installed and powered on, the CORE Vision 360 Black will begin cooling your CPU. The integrated 2.1-inch IPS LCD screen on the waterblock provides real-time information and customization options.



CORE VISION 360 BLACK SPECIFICATION

COOLER	SPECIFICATION	TL-B12	SPECIFICATION
Water Block Dimensions	69.2mm * 69.2mm * 66mm	Fan Dimensions	120mm * 120mm * 25mm
Radiator Dimensions	397mm * 120mm * 27mm	Fan Rated Speed	2150RPM±10%
Pump Connector	4PIN PWM	Fan Rated Noise	≤28.1dBA
		Fan Air Flow	69CFM(MAX)
		Fan Static Pressure	2.87mm/H ² O(MAX)
		Fan Connector	4PIN PWM
		Fan Rated Voltage	DC 12V
		Fan Rated Current	0.16A(MAX)
		Fan Bearing Type	S-FDB Bearing V2

Image 5.1: The 2.1-inch IPS LCD screen displaying system parameters.

5.1. LCD Screen Functionality

- **System Monitoring:** The LCD can display various system parameters such as CPU temperature, CPU usage, and clock frequencies.
- **Customizable Display:** The 480x480 resolution IPS LCD supports personalized moving picture display, GIF playback, and video playback. You can also customize text and background formats.
- **ARGB Ring Light:** The cold head features an ARGB ring light that can be synchronized with your motherboard's ARGB lighting.

5.2. Software Control

To fully utilize the customization features of the LCD screen and manage fan/pump speeds, download and install the official Thermalright control software from the manufacturer's website. The software allows you to:

- Change display themes and upload custom images/videos.
- Monitor system performance in detail.
- Adjust fan and pump curves for optimal cooling and noise levels.

Note: The software may need to be configured to launch automatically upon system startup to maintain your preferred display settings.

6. MAINTENANCE

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

- **Dust Cleaning:** Periodically clean the radiator fins and fan blades with compressed air to remove dust buildup. Dust can impede airflow and reduce cooling efficiency.
- **Cable Inspection:** Check all cables (power, ARGB, USB) for secure connections and any signs of wear or damage.
- **Leak Inspection:** Although closed-loop systems are designed to be maintenance-free regarding liquid, occasionally inspect the tubing and waterblock for any signs of leaks.
- **Thermal Compound:** If you remove the waterblock for any reason, it is recommended to clean off the old thermal compound and apply a fresh layer before reinstallation.

7. TROUBLESHOOTING

If you encounter issues with your Thermalright CORE Vision 360 Black, refer to the following common problems and solutions:

Problem	Possible Solution
High CPU Temperatures	<ul style="list-style-type: none">◦ Ensure the waterblock is securely mounted to the CPU with adequate pressure.◦ Verify thermal compound was applied correctly and evenly.◦ Check that all fans are spinning and the pump is operating (listen for a faint hum).◦ Clean any dust from the radiator fins.◦ Confirm fan and pump speeds are set appropriately in the control software.
Fans Not Spinning / Pump Not Working	<ul style="list-style-type: none">◦ Check all 4-pin PWM connections to the motherboard and splitter cable.◦ Ensure the pump power cable is securely connected to the correct motherboard header (CPU_OPT/AIO_PUMP).◦ Verify power settings in BIOS/UEFI for fan and pump headers.

Problem	Possible Solution
LCD Screen Not Displaying / Malfunctioning	<ul style="list-style-type: none"> ◦ Check the USB data cable connection between the waterblock and the motherboard's USB 2.0 header. ◦ Ensure the Thermalright control software is installed and running. ◦ Restart the control software or your computer. ◦ Update the control software to the latest version.
ARGB Lighting Not Working / Incorrect Colors	<ul style="list-style-type: none"> ◦ Verify all 3-pin ARGB connections are secure and correctly oriented (check for arrow indicators). ◦ Ensure the ARGB cable is connected to a +5V ARGB header, not a +12V RGB header. ◦ Use your motherboard's ARGB software or the Thermalright software to control lighting effects.

8. WARRANTY AND SUPPORT

Thermalright products are manufactured to high-quality standards. This product is covered by a manufacturer's warranty against defects in materials and workmanship. For specific warranty terms, duration, and to initiate a warranty claim, please refer to the warranty card included with your product or visit the official Thermalright website.

For technical support, troubleshooting assistance beyond this manual, or inquiries about replacement parts, please contact Thermalright customer service through their official website or the contact information provided in your product packaging.