Thermaltake CL-W481-PL12SW-A

Thermaltake MINECUBE 360 Ultra All-in-One Liquid Cooler

Model: CL-W481-PL12SW-A

Introduction

The Thermaltake MINECUBE 360 Ultra is an advanced all-in-one liquid cooling system designed for high-performance computing. It features a 360mm radiator, three ARGB fans, and a unique cube-shaped pump block with a 3.95-inch LCD display on four sides. This manual provides essential information for the proper installation, operation, and maintenance of your liquid cooler.

Safety Information

- Ensure all power is disconnected from your computer before installation or maintenance.
- Handle components with care to avoid damage.
- Refer to your motherboard and PC case manuals for specific installation guidelines.
- Do not attempt to open the pump or radiator, as this may void the warranty and cause leaks.
- Keep out of reach of children.

Package Contents

Verify that all components are present before beginning installation:

- MINECUBE 360 Ultra All-in-One Liquid Cooler (Radiator, Pump/CPU Block, Tubing)
- SWAFAN EX120 ARGB Fans (x3)
- Mounting Hardware for Intel Sockets (LGA2066/2011-3/2011/1851/1700/1200/1156/1155/1151/1150)
- Mounting Hardware for AMD Sockets (AM5/AM4/AM3+/AM3/AM2+/AM2/FM2/FM1)
- Replacement Fan Blades
- Accessory Kit (Cables, Thermal Paste, etc.)
- User Manual

Setup and Installation

1. Prepare the Radiator and Fans

Attach the three SWAFAN EX120 ARGB fans to the 360mm radiator using the provided screws. Ensure the fan orientation is correct for your desired airflow (intake or exhaust). The SWAFAN EX120 ARGB fans feature a MagForce 2.0 magnetic connector for simplified wiring.

Image: Front view of the radiator with fans.

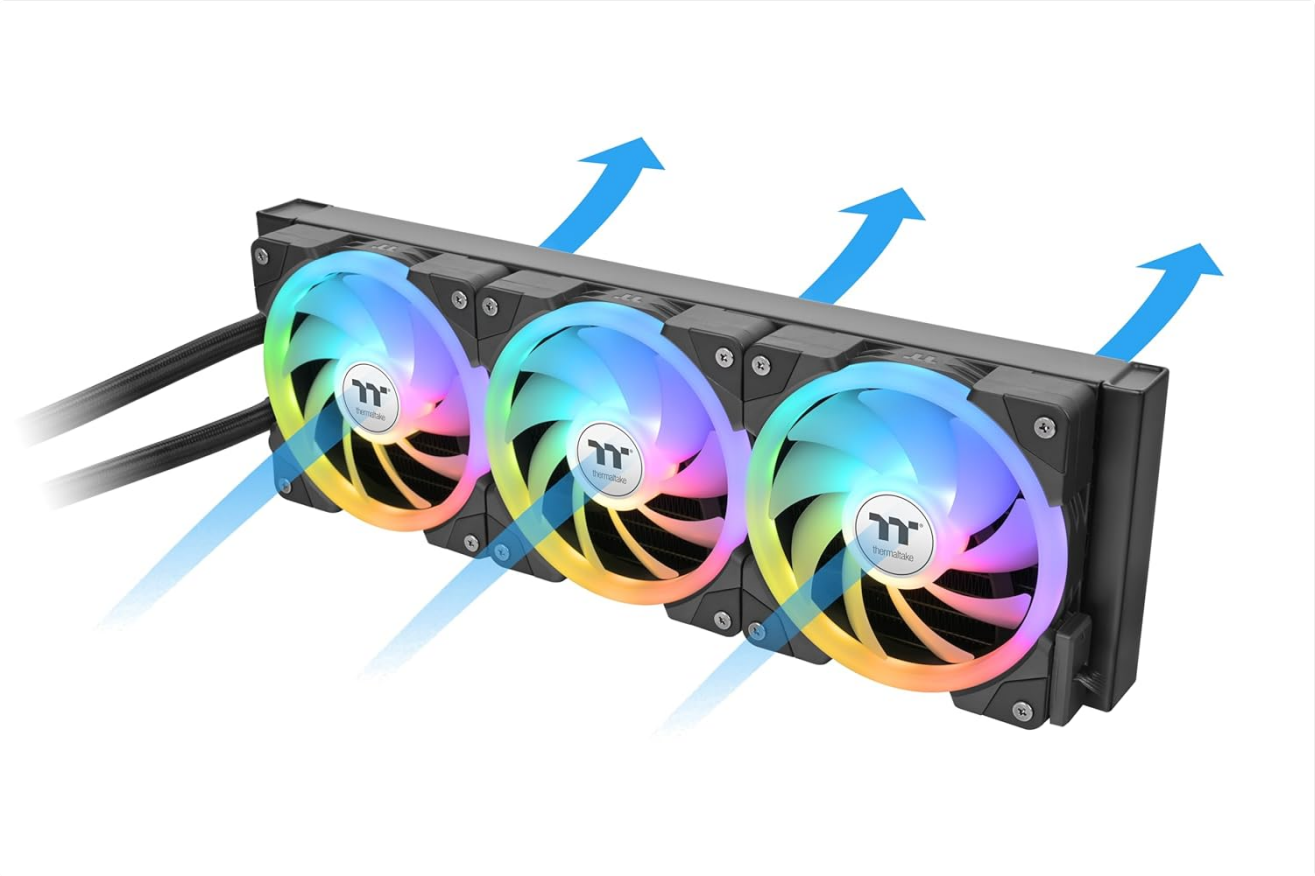

Image: Radiator with fans configured for exhaust airflow.

Image: Radiator with fans configured for intake airflow.

2. Install the Radiator

Mount the assembled radiator and fan unit into your PC case. Common mounting locations include the top, front, or side

panels, depending on your case design. Secure the radiator using the appropriate screws.

3. Prepare the CPU Socket

Select the correct mounting bracket for your CPU socket (Intel or AMD). Install the backplate (if required for your socket) and standoffs onto your motherboard. Apply a thin, even layer of thermal paste to the center of your CPU's integrated heat spreader (IHS).

4. Install the Pump/CPU Block

Carefully place the pump/CPU block onto the CPU, aligning the mounting holes with the standoffs. Secure the pump block with the provided thumb screws or nuts, tightening them in a diagonal pattern until snug. Avoid overtightening.

Image: Pump block with LCD showing system statistics.

Image: Pump block with LCD showing a graphical interface.

5. Connect Cables

- **Fan Power:** Connect the 4-pin PWM fan cables from the fans to the motherboard's CPU_FAN or AIO_PUMP headers, or to a fan controller.
- **ARGB Lighting:** Connect the 3-pin (5V) ARGB cables to a compatible ARGB header on your motherboard or an ARGB controller.
- **LCD Display:** Connect the Micro-USB cable from the pump block to an available USB 2.0 (9-pin) header on your motherboard.

Image: Cooler installed in a PC case with ARGB lighting.

Image: Cooler installed in a PC case with purple ARGB lighting.

6. Software Installation

Download and install the latest Thermaltake software (e.g., TT RGB Plus) from the official Thermaltake website. This

software is required to customize the LCD display, control fan speeds, and manage ARGB lighting effects.

Operating Instructions

Powering On

After completing all connections, power on your computer. The cooler's fans and pump will begin operating, and the LCD display on the pump block will initialize.

LCD Display Functions

The 3.95-inch TFT-LCD display (720 x 720 pixels) on the pump block can show various system information, custom images, or animations. Use the Thermaltake software to configure the display content. You can monitor CPU temperature, GPU frequency, and other system parameters directly on the screen.

Fan and Pump Control

The fan speeds (500 - 2000 RPM) and pump speed (1,500 - 3,300 RPM) are controlled via PWM signals from your motherboard or through the Thermaltake software. Adjust these settings to balance cooling performance and noise levels according to your preferences.

Maintenance

Cleaning the Radiator and Fans

Periodically clean dust from the radiator fins and fan blades to maintain optimal cooling performance. Use compressed air or a soft brush. For the SWAFAN EX120 ARGB fans, the fan blades can be removed without tools for thorough cleaning or to change airflow direction.

Checking Tubing and Connections

Visually inspect the tubing and connections for any signs of leaks or damage. Ensure all cables are securely connected.

Troubleshooting

- **No Power/Fans Not Spinning:** Check all power connections, especially the 4-pin PWM header on the motherboard. Ensure the pump is connected to a dedicated AIO_PUMP or CPU_FAN header.
- **LCD Not Displaying:** Verify the Micro-USB to USB (9-pin) cable is securely connected to both the pump block and the motherboard header. Ensure the Thermaltake software is installed and running.
- **Poor Cooling Performance:** Check for dust buildup on the radiator and fans. Ensure the pump block is properly seated on the CPU with adequate thermal paste. Verify fan orientation for optimal airflow.
- **ARGB Lighting Not Working:** Confirm the 3-pin (5V) ARGB cable is correctly connected to a compatible header. Use the Thermaltake software to control lighting effects.

Specifications

Radiator Size	396 x 120 x 27 mm (15.6 x 4.7 x 1.1 inches)
Tube Length	460 mm (18.1 inches)

Compatible Intel Sockets	LGA2066/2011-3/2011/1851/1700/1200/1156/1155/1151/1150
Compatible AMD Sockets	AM5/AM4/AM3+/AM3/AM2+/AM2/FM2/FM1
Fan Size	120 mm x 3
Fan Revolutions	500 - 2000 RPM
Fan Air Flow (Standard)	57.11 CFM
Fan Air Pressure (Standard)	2.39 mm-H2O
Fan Noise Level (Standard)	30.6 dBA
Pump Revolutions	1,500 - 3,300 RPM
Display Size	3.95 inch TFT-LCD x 4
Display Resolution	720 x 720 pixels
Connectors	Fan 4-pin (PWM), ARGB 3-pin (5V), Display Micro-USB to USB (9-pin)
Power Consumption	Fan 3.24W/3.6W (per unit), Pump 5.16W, Pump fan 0.72W, Display 6W
Rated Voltage	Fan 12V/5V, Pump 12V, Pump Fan 12V, Display 5V
Supported OS	Windows 11/10

Warranty and Support

Thermaltake products are covered by a limited warranty. For detailed warranty information, please refer to the warranty card included with your product or visit the official Thermaltake website. For technical support, driver downloads, or further assistance, please visit the Thermaltake support page or contact their customer service.
Thermaltake Store: https://www.amazon.com/stores/Thermaltake/page/E7446300-D4D5-4D86-B99A-E6DBD017FB77