

Thermaltake CL-W323-PL12GM-B

Thermaltake TOUGHLIQUID Ultra 360 AIO Liquid Cooler Instruction Manual

Model: CL-W323-PL12GM-B

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1. OVERVIEW

The Thermaltake TOUGHLIQUID Ultra 360 AIO Liquid Cooler is an all-in-one liquid cooling solution designed for high-performance computing systems. It features a 2.1-inch rotational LCD display on the CPU water block, allowing users to monitor real-time PC information such as CPU frequency, load, and temperature, as well as GPU temperature and frequency. The display supports custom images or GIF files with 480x480 resolution for personalization. This cooler is equipped with three TOUGHFAN 12 Turbo fans, engineered to provide efficient cooling at speeds up to 2500 RPM while maintaining minimal noise levels. The high-performance copper cold plate enhances heat conductivity for optimal cooling. The system is compatible with various Intel (LGA 1700/1200/2066/2011-3/2011/1366/1156/1155/1151/1150) and AMD (AM5/AM4/AM3+/AM3/AM2+/AM2/FM2/FM1) CPU sockets.

The TOUGHLIQUID Ultra 360 integrates with TT RGB Plus 2.0 software for comprehensive control over lighting effects and monitoring functions.

2. PACKAGE CONTENTS

Verify that all components are present before beginning installation. If any items are missing or damaged, contact Thermaltake customer support.

- TOUGHLIQUID Ultra 360 AIO Liquid Cooler (Radiator, Pump/Water Block with LCD, Tubing)
- Three TOUGHFAN 12 Turbo Fans

- Installation Manual
- TT RGB Plus 2.0 Guide
- AIO Backplate (Universal for Intel/AMD)
- AMD Backplate Sticker (for AMD installations)
- Thermal Paste (syringe)
- AMD Pump Bracket (Intel bracket comes pre-installed)
- LGA 2011 Pump Mounting Screws
- Pump Mounting Hardware (various screws and standoffs)
- MB Sync Cable
- Fan Splitter Cable
- Fan & Radiator Mounting Screws
- Warranty Card



Image: Overview of Thermaltake TOUGHLIQUID Ultra 360 AIO Liquid Cooler components, including radiator, fans, and water block.

Your browser does not support the video tag.

Video: Unboxing and overview of the Thermaltake TOUGHLIQUID Ultra 360 AIO Liquid Cooler, showing all included components and accessories.

3. SETUP AND INSTALLATION

This section provides general guidelines for installing your TOUGHLIQUID Ultra 360 AIO Liquid Cooler. Refer to the detailed Installation Manual included in your package for specific steps and diagrams tailored to your CPU socket type (Intel or AMD).

1. Prepare the Motherboard:

- For Intel sockets, ensure the correct backplate is installed behind the motherboard.
- For AMD sockets, apply the AMD backplate sticker to the provided AIO backplate if necessary, and install it.

2. Mount the Radiator and Fans:

- Attach the three TOUGHFAN 12 Turbo fans to the radiator using the provided fan & radiator mounting

screws. Ensure the fans are oriented correctly for optimal airflow (intake or exhaust, depending on your case configuration).

- Mount the assembled radiator and fans to an available 360mm radiator mount in your PC case.



Image: Three TOUGHFAN 12 Turbo fans mounted on the radiator.

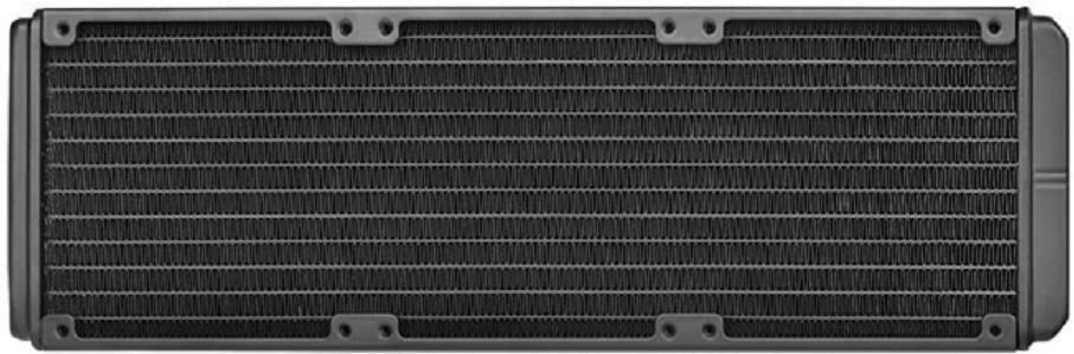


Image: Close-up view of the radiator fins.

3. Install the Water Block/Pump:

- Apply a small amount of thermal paste to the center of your CPU's integrated heat spreader (IHS).
- Secure the water block/pump assembly onto the CPU using the appropriate pump mounting hardware for your socket. Ensure even pressure for optimal thermal contact.



Image: The water block featuring its copper cold plate.

4. Connect Cables:

- Connect the fan cables to the fan splitter, then connect the splitter to a CPU_FAN or AIO_PUMP header on your motherboard.
- Connect the pump's power cable to an appropriate header (e.g., AIO_PUMP or PUMP_FAN) on your motherboard.
- Connect the MB Sync Cable from the water block to an available USB 2.0 header on your motherboard for LCD display functionality and software control.

4. OPERATING INSTRUCTIONS

Once installed, the TOUGHLIQUID Ultra 360 AIO Liquid Cooler will begin cooling your CPU automatically. To unlock its full potential and customize the LCD display and RGB lighting, install the TT RGB Plus 2.0 software.

4.1. TT RGB Plus 2.0 Software

The TT RGB Plus 2.0 software allows you to:

- Monitor real-time system information (CPU/GPU frequency, load, temperature) on the 2.1-inch LCD display.
- Upload custom images or GIF files to the LCD display (480x480 resolution).
- Control RGB lighting effects for compatible Thermaltake components.
- Adjust fan speeds and pump performance profiles.

Download the latest version of the TT RGB Plus 2.0 software from the official Thermaltake website. Refer to the included TT RGB Plus 2.0 Guide for detailed software usage instructions.



Image: Screenshot of the TT RGB Plus 2.0 software interface, showing customization options for the LCD display.



Image: The 2.1-inch LCD display on the water block, showing system information within a PC build.

5. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your liquid cooler.

- **Dust Cleaning:** Periodically clean dust from the radiator fins and fan blades using compressed air or a soft brush. Excessive dust can impede airflow and reduce cooling efficiency.
- **Cable Management:** Ensure all cables are neatly routed and secured to prevent interference with fan blades or other components.
- **Coolant Check:** This is a closed-loop AIO system and does not require coolant refills under normal operation. If you suspect a leak or significant performance degradation, contact Thermaltake support.
- **Software Updates:** Keep the TT RGB Plus 2.0 software updated to the latest version for new features, performance improvements, and bug fixes.

6. TROUBLESHOOTING

If you encounter issues with your TOUGHLIQUID Ultra 360 AIO Liquid Cooler, refer to the following common troubleshooting steps:

- **No Power/Fans Not Spinning/LCD Not Displaying:**
 - Check all power connections to the pump and fans.
 - Ensure the USB 2.0 header cable for the LCD is securely connected to both the water block and the motherboard.
 - Verify that the fan splitter is correctly connected to the motherboard header.
 - Check BIOS settings to ensure fan headers are enabled and configured correctly.
- **High CPU/GPU Temperatures:**
 - Confirm that the water block is securely mounted to the CPU and thermal paste is properly applied.
 - Ensure fans are spinning and oriented correctly for optimal airflow.
 - Clean any dust buildup on the radiator fins.
 - Check pump operation; listen for any unusual noises or verify pump speed in TT RGB Plus 2.0 software.
 - Ensure the TT RGB Plus 2.0 software is running and fan/pump profiles are set to an appropriate cooling mode.
- **Unusual Noises (Gurgling, Whining):**
 - Slight gurgling during initial startup is normal as air settles. If persistent, gently tilt your PC case to help trapped air move to the radiator.
 - Ensure the pump is not the highest point in the loop, as this can trap air in the pump.
 - If fans are making excessive noise, check for obstructions or loose mounting screws.
- **LCD Display Issues (Frozen, Blank, Incorrect Data):**
 - Restart the TT RGB Plus 2.0 software.
 - Ensure the USB 2.0 header connection is stable.
 - Update the TT RGB Plus 2.0 software and firmware for the cooler.

If these steps do not resolve the issue, please contact Thermaltake customer support for further assistance.

7. SPECIFICATIONS

Feature	Detail
Model Number	CL-W323-PL12GM-B

Feature	Detail
Product Dimensions	4.72"L x 0.98"W x 4.72"H (Pump/Water Block)
Radiator Dimensions	395 x 120 x 27 mm
Material	Copper (Cold Plate), Aluminum (Radiator)
Cooling Method	Water Cooling
Fan Type	TOUGHFAN 12 Turbo
Fan Speed	PWM 500~2500 R.P.M
Noise Level	28.1 dB-A (one fan)
Max. Air Flow	72.69 CFM (one fan)
Max. Pressure	3.78 mm-H ₂ O (one fan)
Pump Motor Speed	3200 RPM
CPU Display Type	2.1" TFT-LCD
CPU Display Resolution	480x480 (RGB) px
Tube Length	400 mm
CPU Socket Compatibility	Intel LGA 2066/2011-3/2011/1700/1366/1200/1156/1155/1151/1150, AMD AM5/AM4/AM3+/AM3/AM2+/AM2/FM2/FM1
System Compatibility	Windows 7 / 8 / 8.1 / 10

8. WARRANTY AND SUPPORT

This product comes with a **2-year manufacturer's warranty**. For warranty claims, technical support, or further assistance, please contact Thermaltake customer service.

You can find additional resources and contact information on the official Thermaltake website: www.thermaltake.com

For product registration and to access the latest drivers and software (including TT RGB Plus 2.0), visit the Thermaltake support page.

