

Thermaltake UX500 ARGB

Thermaltake UX500 ARGB CPU Cooler Instruction Manual

Model: UX500 ARGB (CL-P144-AL12SW-A)

1. PRODUCT OVERVIEW

The Thermaltake UX500 ARGB CPU Cooler is designed to provide efficient cooling for your processor. It features five Ø6mm copper heat pipes connected to an aluminum fin stack, cooled by a 120mm PWM fan. This combination delivers a cooling capacity of up to 260W TDP. The integrated ARGB lighting, controlled via a 5V 3-Pin connector, allows for customizable visual effects.

Key Features

- **Efficient Cooling:** Utilizes five Ø6mm direct touch copper heat pipes and an aluminum fin stack for up to 260W cooling performance.
- **Adjustable Airflow:** Equipped with a 120mm ARGB PWM fan, operating between 700 and 1800 RPM for optimized airflow.
- **Broad Compatibility:** Supports Intel LGA 1851/1700/1200/1156/1155/1151/1150 and AMD AM5/AM4/FM2/FM1/AM3+/AM3/AM2+/AM2 sockets.
- **Non-Interference Design:** Engineered to avoid interference with memory modules, allowing for flexible RAM choices.
- **Durable Bearing:** Features a hydraulic bearing for reliable operation, reduced noise, and enhanced thermal efficiency.



Figure 1: Angled view of the Thermaltake UX500 ARGB CPU Cooler, showcasing its heatsink, ARGB fan, and copper heatpipes.

2. INSTALLATION GUIDE

2.1 Before You Begin

- Ensure your system is powered off and unplugged from the wall outlet.
- Refer to your motherboard manual for CPU socket type and clearance information.
- Verify all components are present in the package: CPU cooler, mounting hardware (backplate, screws, standoffs), and fan.
- The cooler comes with pre-applied thermal paste on the base. If you prefer to use your own, carefully clean off the pre-applied paste with isopropyl alcohol before application.

2.2 Installation Steps

1. **Prepare Motherboard:** If your motherboard is already installed in a case, you may need to remove it or ensure there is an access cutout behind the CPU socket to install the backplate.
2. **Install Backplate:** Position the universal backplate on the rear side of your motherboard, aligning the holes with the CPU socket mounting points.
3. **Secure Standoffs:** From the front side of the motherboard, insert the appropriate standoffs through the mounting holes and screw them into the backplate.
4. **Position Cooler:** Carefully place the CPU cooler onto the CPU, ensuring the pre-applied thermal paste (or your own applied paste) makes full contact. Align the cooler's mounting brackets with the standoffs.
5. **Fasten Cooler:** Using the provided screws, secure the cooler to the standoffs. Tighten screws in a diagonal pattern (e.g., top-left, bottom-right, top-right, bottom-left) until snug, ensuring even pressure. Do not overtighten.
6. **Connect Fan Power:** Locate the CPU_FAN header on your motherboard and connect the cooler's 3-Pin fan power cable.
7. **Connect ARGB Cable:** If you wish to use the ARGB lighting, connect the cooler's 5V 3-Pin ARGB cable to a compatible 5V ARGB header on your motherboard. Ensure it is connected to a 5V header, not a 12V RGB header, to prevent damage.



Figure 2: The UX500 ARGB CPU Cooler mounted on a motherboard, illustrating proper orientation and component clearance.

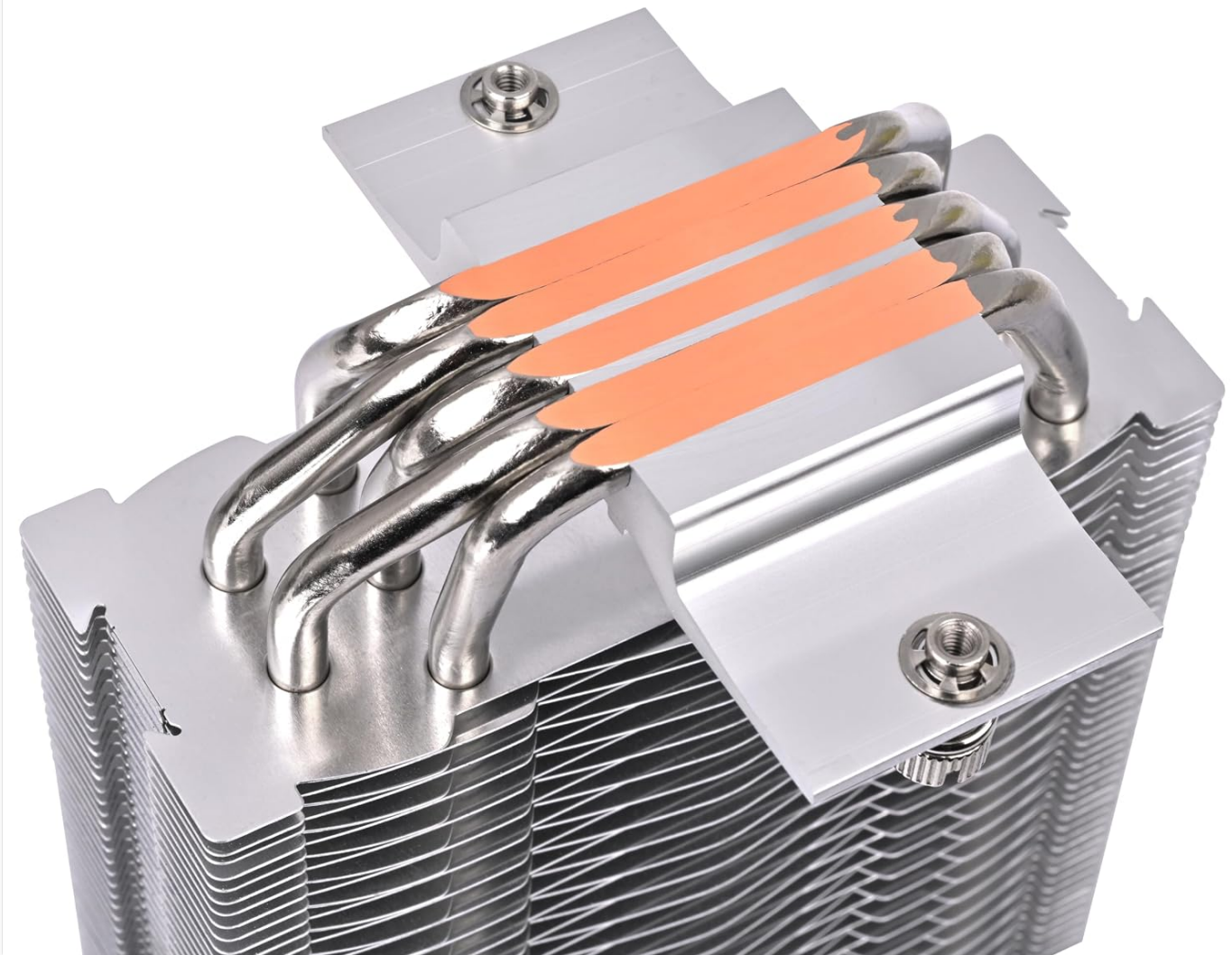


Figure 3: Detail of the cooler's base, showing the direct contact copper heatpipes where thermal paste is applied.

3. OPERATION

3.1 Fan Control

The 120mm fan on the UX500 ARGB CPU Cooler is a Pulse Width Modulation (PWM) fan. This allows your motherboard to dynamically control the fan speed based on CPU temperature, optimizing for both cooling performance and noise levels. The fan operates within a speed range of 700 to 1800 RPM.

- Access your motherboard's BIOS/UEFI settings or use motherboard-specific software to configure fan curves and control fan speed.
- Ensure the fan is connected to the CPU_FAN header for proper temperature-based control.

3.2 ARGB Lighting Control

The cooler features addressable RGB (ARGB) lighting, which can be synchronized with your motherboard's lighting system. The 5V 3-Pin ARGB connector allows for control of 9 LEDs, offering a wide range of color effects.

- Connect the 5V 3-Pin ARGB cable to a compatible 5V ARGB header on your motherboard.
- Use your motherboard's dedicated ARGB software (e.g., ASUS Aura Sync, MSI Mystic Light Sync, GIGABYTE RGB Fusion, BIOSSTAR RGB Sync, ASRock Polychrome Sync) to customize lighting effects and colors.
- Ensure the ARGB cable is connected to a 5V header, not a 12V RGB header, to prevent damage to the LEDs.



Figure 4: Front view of the cooler's fan, illustrating the customizable ARGB lighting effects.

4. MAINTENANCE

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

- **Dust Removal:** Periodically inspect the heatsink fins and fan blades for dust accumulation. Use compressed air to gently blow dust away from the fins and fan. Hold the fan blades stationary while using compressed air to prevent

over-spinning and potential damage to the bearing.

- **Fan Cleaning:** If dust buildup is heavy, carefully remove the fan from the heatsink (if detachable) and clean the blades with a soft brush or cloth.
- **Thermal Paste:** The pre-applied thermal paste is designed for long-term use. However, if you remove the cooler for any reason, it is recommended to clean off the old thermal paste from both the CPU and the cooler base and apply a fresh layer before reinstallation.
- **Cable Management:** Ensure all cables (fan power, ARGB) are securely connected and routed to avoid interfering with fan operation or other components.

5. TROUBLESHOOTING

If you encounter issues with your Thermaltake UX500 ARGB CPU Cooler, refer to the following common troubleshooting steps:

- **High CPU Temperatures:**
 - Verify the cooler is securely mounted and making proper contact with the CPU.
 - Check if thermal paste was applied correctly and evenly. Reapply if necessary.
 - Ensure the fan is spinning. If not, check the fan power connection to the CPU_FAN header.
 - Clean any dust buildup from the heatsink and fan blades.
 - Confirm adequate airflow within your PC case.
- **Fan Not Spinning:**
 - Check the 3-Pin fan power cable connection to the CPU_FAN header on the motherboard.
 - Inspect the cable for any damage.
 - Enter BIOS/UEFI to ensure the CPU_FAN header is enabled and configured correctly.
- **ARGB Lighting Not Working or Incorrect:**
 - Verify the 5V 3-Pin ARGB cable is securely connected to a compatible 5V ARGB header on your motherboard.
 - Ensure you are using the correct motherboard ARGB software and that it is up-to-date.
 - Confirm the ARGB header is enabled in your motherboard's BIOS/UEFI settings.
 - **Important:** Do not connect the 5V 3-Pin ARGB cable to a 12V 4-Pin RGB header, as this will damage the LEDs.

6. TECHNICAL SPECIFICATIONS

Feature	Specification
Model Number	UX500 ARGB (CL-P144-AL12SW-A)
Cooling Capacity (TDP)	260W
Heatpipes	5 x Ø6mm Copper Direct Touch
Fin Material	Aluminum
Fan Dimensions	120mm x 120mm x 25mm

Feature	Specification
Fan Speed	700 ~ 1800 RPM (PWM Controlled)
Max. Airflow	62.72 CFM
Max. Static Pressure	1.47 mm-H2O
Noise Level	25.0 dB-A
Bearing Type	Hydraulic Bearing
Power Connector	3-Pin (Fan)
ARGB Connector	5V 3-Pin
Compatible Sockets	Intel: LGA 1851/1700/1200/1156/1155/1151/1150 AMD: AM5/AM4/FM2/FM1/AM3+/AM3/AM2+/AM2
Product Dimensions (L x W x H)	Approx. 120 x 70 x 156 mm (Fan included)
Weight	Approx. 1.52 lbs (0.69 kg)
UPC	841163099018

7. WARRANTY INFORMATION

For detailed warranty terms and conditions, please refer to the official Thermaltake website or the warranty card included with your product. Warranty coverage typically includes defects in materials and workmanship under normal use.

To register your product or for specific warranty inquiries, visit the [Thermaltake official website](#).

8. CUSTOMER SUPPORT

If you require further assistance or have questions not covered in this manual, please contact Thermaltake customer support.

- **Online Support:** Visit the [Thermaltake official website](#) for FAQs, drivers, and support resources.
- **Contact Information:** Refer to the support section of the Thermaltake website for regional contact details, including phone numbers and email addresses.

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