

Thermalright AX120 SE-D1

Thermalright Assassin X120 Refined SE CPU Air Cooler

Model: AX120 SE-D1

1. SAFETY INFORMATION

Please read and understand all instructions before installing or operating this product. Failure to follow these instructions may result in product damage, property damage, or personal injury.

- Ensure your computer system is powered off and unplugged from the wall outlet before beginning installation.
- Handle all components with care to prevent damage.
- Keep small parts away from children.
- Do not attempt to modify the cooler or its components.
- Use only the provided mounting hardware.

2. PACKAGE CONTENTS

Verify that all items listed below are present in your package:

- Thermalright Assassin X120 Refined SE Heatsink
- TL-C12C PWM Fan (120mm)
- Intel & AMD Mounting Brackets and Hardware (including backplate, standoffs, screws)
- Thermal Compound
- Fan Clips

3. SETUP AND INSTALLATION

This section provides detailed steps for installing your Thermalright Assassin X120 Refined SE CPU Air Cooler. For a visual guide, please refer to the installation video below.

Official installation video for the Thermalright AX120R SE ARGB Air Cooler series. This video demonstrates the step-by-step process for mounting the cooler on compatible Intel and AMD motherboards.

3.1. Pre-Installation Steps

1. Ensure your CPU is properly seated in its socket.
2. Clean the CPU's Integrated Heat Spreader (IHS) surface thoroughly with isopropyl alcohol to remove any old thermal paste or residue.
3. Identify the correct mounting hardware for your CPU socket (Intel LGA1150/1151/1155/1156/1200/1700/1851 or AMD AM4/AM5).

3.2. Mounting Bracket Installation (Intel LGA1700 Example)

1. Stick the Intel 1700 back plate onto the back side of the motherboard, aligning the holes.
2. Install four Intel 1700 plastic standoffs into the motherboard's mounting holes from the front side.
3. Install two metal brackets onto the plastic standoffs. Be aware of the LGA1700 mounting holes for correct orientation.
4. Secure the metal brackets with four Intel screws, tightening them evenly in a diagonal pattern until snug.

3.3. Heatsink and Fan Installation

1. Apply a small amount of thermal compound (e.g., a pea-sized dot or a thin line) onto the center of the CPU IHS.
2. Remove the protective plastic sticker from the heatsink base.
3. Carefully place the heatsink onto the CPU, aligning the mounting nuts on the heatsink with the screws on both brackets.
4. Tighten both nuts with a screwdriver, alternating between them in small increments to ensure even pressure until the heatsink is firmly secured.
5. Install the fan clips onto the TL-C12C fan.
6. Attach the fan with the fan clips onto the heatsink, ensuring it is oriented to push air through the fins towards the rear or top of your case.
7. Install the 4-pin PWM fan header into the CPU FAN socket on your motherboard.
8. If your fan has ARGB lighting (check your specific model), connect the lighting signal cable to the motherboard's +5V ARGB 3PIN lighting socket.

4. OPERATING INSTRUCTIONS

The Thermalright Assassin X120 Refined SE is designed for efficient and quiet CPU cooling. Once installed, the fan will automatically adjust its speed based on CPU temperature, controlled by your motherboard's PWM settings.

- **Automatic Fan Control:** The TL-C12C PWM fan operates at speeds up to 1550 RPM ($\pm 10\%$), providing optimal airflow while maintaining a low noise level ($\leq 25.6\text{dB(A)}$).
- **AGHP Technology:** The 4x6mm pure copper heat pipes utilize Anti-Gravity Heat Pipe (AGHP) technology, ensuring consistent cooling performance regardless of the cooler's orientation within your PC case.
- **Thermal Performance:** The cooler is designed to quietly dissipate high CPU temperatures, maintaining stable performance even under gaming and heavy workloads.

5. MAINTENANCE

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

- **Dust Removal:** Periodically (e.g., every 3-6 months), use compressed air to gently blow dust out of the heatsink fins and fan blades. Ensure the fan is held stationary to prevent over-spinning and

potential damage to the bearings.

- **Thermal Paste:** The thermal paste typically lasts for several years. If you notice a significant increase in CPU temperatures, consider reapplying fresh thermal compound after carefully cleaning the CPU and heatsink surfaces.
- **Fan Inspection:** Check the fan for any obstructions or unusual noises. Ensure the fan cable is securely connected to the motherboard.

6. TROUBLESHOOTING

If you encounter issues with your CPU cooler, try the following steps:

- **Fan Not Spinning:**
 - Check if the 4-pin PWM fan header is securely connected to the CPU FAN socket on the motherboard.
 - Verify that the fan is enabled in your motherboard's BIOS/UEFI settings.
 - Ensure your power supply is providing adequate power to the motherboard and components.
- **High CPU Temperatures:**
 - Confirm the heatsink is properly seated and making full contact with the CPU IHS. Re-tighten the mounting screws if necessary.
 - Check if thermal paste was applied correctly and evenly. Reapply if unsure.
 - Ensure the fan is spinning and oriented correctly (blowing air through the heatsink).
 - Verify adequate airflow within your PC case. Consider adding or re-orienting case fans.
 - Check for excessive dust buildup on the heatsink fins and fan blades. Clean as per maintenance instructions.
- **Excessive Noise:**
 - Ensure the fan is securely attached to the heatsink and not vibrating against other components.
 - Check for any cables or obstructions touching the fan blades.
 - Adjust fan speed curves in your motherboard's BIOS/UEFI settings to reduce noise if temperatures allow.

7. SPECIFICATIONS

Feature	Specification
CPU Cooler Dimensions (L x W x H)	125mm x 71mm x 148mm (4.92 x 2.8 x 5.83 inches)
Product Weight	0.645 kg (1.42 lb)
Heatsink Material	Aluminum
Heat Pipes	4 x 6mm Pure Copper (AGHP Technology)
Fan Model	TL-C12C
Fan Dimensions (L x W x H)	120mm x 120mm x 25mm (4.72 x 4.72 x 0.98 inches)
Fan Speed	1550 RPM \pm 10%

Feature	Specification
Air Flow	66.17 CFM (MAX)
Noise Level	≤25.6 dB(A)
Power Connector	4-Pin PWM
Voltage	12 Volts
Wattage	3.6 Watts
Bearing Type	S-FDB Bearings
Compatible Sockets	Intel: LGA1150/1151/1155/1156/1200/1700/1851, AMD: AM4/AM5



Dimensions of the Assassin X120R SE CPU Cooler and TL-C12C fan.

DETAIL DETERMINES QUALITY

AMD:
AM4



INTEL:
LGA1150/1151/1155/1156/1200

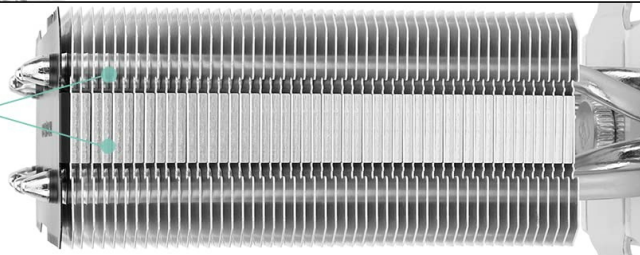


Dual platform SS2 type full metal pressure mounting kit



Matt black top cover

99% pure aluminum radiator fin,
heat pipes direct touch technology



Detailed view of the dual-platform SS2 full metal pressure mounting kit, matt black top cover, and 99% pure aluminum radiator fins with direct touch heat pipes.

AGHP Technology



Four AGHP (Anti Gravity Heat Pipe) Technology pure Copper heat pipes give consistent performance in most case mounting directions.

Illustration of the AGHP (Anti Gravity Heat Pipe) Technology with four pure copper heat pipes, designed for consistent performance in various mounting directions.

8. WARRANTY AND SUPPORT

Thermalright products are manufactured to high-quality standards. For specific warranty terms and conditions, please refer to the official Thermalright website or contact your local retailer.

If you require technical assistance or have questions regarding your product, please visit the Thermalright support page or contact their customer service department through the contact information provided on their official website.