Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

Noctua NH-U12A chromax.black

Noctua NH-U12A chromax.Black CPU Cooler Instruction Manual

Model: NH-U12A chromax.black | Brand: Noctua

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your Noctua NH-U12A chromax.Black CPU Cooler. Please read this manual thoroughly before proceeding with installation to ensure proper function and longevity of your product.



Figure 1: Front view of the Noctua NH-U12A chromax.Black CPU Cooler.

2. Key Features

- **Premium Heatsink Design:** Features a proven heatsink design, now in an all-black finish for aesthetic integration into various PC builds.
- **Optimized Compatibility:** 120mm size fits most tower cases (158mm height) and avoids overhang on RAM slots, ensuring compatibility with tall RAM modules and most ATX & Micro-ATX motherboards.
- **Dual NF-A12x25 Fans:** Equipped with two state-of-the-art NF-A12x25 120mm fans, including Low-Noise Adaptors and PWM for automatic speed control, providing high cooling performance with quiet operation.
- **Advanced Mounting System:** Includes the high-end NT-H1 thermal paste and the SecuFirm2 mounting system for easy installation on Intel LGA1851, LGA1700, LGA1200, LGA115x, and AMD AM5 & AM4 sockets.
- **Durable Construction:** Constructed with copper (base and heat-pipes) and aluminum (cooling fins), featuring soldered joints and nickel plating for enhanced durability and performance.



Figure 2: Detailed view of the cooler's heatpipes.

3. What's in the Box

Your Noctua NH-U12A chromax.Black CPU Cooler package includes the following items:

- NH-U12A chromax.black heatsink
- 2x NF-A12x25 chromax.black PWM fans
- SecuFirm2 Multi-Socket Mounting System
- NT-H1 high-grade thermal compound (syringe)
- 2x Low-Noise Adaptors (L.N.A.)
- Y-cable for 2x PWM fans
- Noctua Metal Case-Badge



Figure 3: Contents of the Noctua NH-U12A chromax.Black package.

4. Setup and Installation

The Noctua NH-U12A chromax.Black utilizes the SecuFirm2 mounting system for secure and straightforward installation. Please refer to the specific instructions for your CPU socket type below.

4.1. General Installation Overview

Before starting, ensure your system is powered off and unplugged. Remove any existing CPU cooler and clean the CPU surface thoroughly from old thermal paste.

Video 1: Installation guide for the Noctua NH-U12A chromax.Black CPU Fan.

4.2. Intel Socket Installation (LGA1851, LGA1700, LGA1200, LGA115x)

1. Place the SecuFirm2 backplate behind the motherboard, aligning the screw holes.
2. Insert the Intel mounting screws through the appropriate holes in the backplate and motherboard. Use the outer holes for LGA1700/1851 and inner holes for LGA1200/115x.
3. Secure the mounting bars onto the screws using the provided spacers and thumb nuts.
4. Apply a small amount of NT-H1 thermal paste to the center of the CPU's integrated heat spreader (IHS).
5. Position the heatsink onto the CPU, aligning the mounting screws with the holes in the heatsink's base.
6. Tighten the screws evenly using the provided screwdriver until firm. Do not overtighten.
7. Attach the NF-A12x25 fans to the heatsink using the included fan clips. Ensure proper airflow direction (typically towards the rear exhaust fan).
8. Connect the fan cables to the CPU_FAN header on your motherboard, using the Y-cable if both fans are connected to a single header.

4.3. AMD Socket Installation (AM5, AM4)

1. Remove the pre-installed plastic retention brackets from the motherboard. Keep the original AMD backplate.
2. Install the AMD mounting screws into the original backplate's threaded holes.
3. Place the AMD spacers onto the mounting screws.
4. Secure the AMD mounting bars onto the screws using the provided thumb nuts.
5. Apply a small amount of NT-H1 thermal paste to the center of the CPU's integrated heat spreader (IHS).
6. Position the heatsink onto the CPU, aligning the mounting screws with the holes in the heatsink's base.
7. Tighten the screws evenly using the provided screwdriver until firm. Do not overtighten.

8. Attach the NF-A12x25 fans to the heatsink using the included fan clips. Ensure proper airflow direction.
9. Connect the fan cables to the CPU_FAN header on your motherboard, using the Y-cable if both fans are connected to a single header.



Figure 4: Noctua NT-H1 thermal compound for optimal heat transfer.

5. Operating Instructions

The NH-U12A chromax.Black is designed for optimal performance with minimal user intervention. The NF-A12x25 PWM fans automatically adjust their speed based on CPU temperature, ensuring efficient cooling and quiet operation.

5.1. Fan Speed Control

The included Low-Noise Adaptors (L.N.A.) can be used to reduce the maximum fan speed, resulting in even quieter operation for noise-sensitive users. Connect the L.N.A. between the fan cable and the motherboard's CPU_FAN header if desired.

5.2. Customization (chromax accessories)

The NH-U12A chromax.Black can be customized with optional chromax accessories (sold separately) such as NA-HC7 and NA-HC8 heatsink covers, and NA-SAVP1 anti-vibration pads in various colors (black, blue, green, red, yellow, white) to match your build's aesthetic.

Video 2: Overview of Noctua's chromax product line and customization options.



*chromax.white accessories not included

Figure 5: Example of the cooler customized with white chromax accessories.

6. Maintenance

Regular maintenance ensures optimal cooling performance and extends the lifespan of your cooler.

6.1. Cleaning

Dust accumulation can impede airflow and reduce cooling efficiency. Periodically clean the heatsink fins and fan blades using compressed air or a soft brush. Ensure the fans are not spinning during cleaning to prevent damage.

6.2. Thermal Paste Reapplication

Thermal paste typically lasts for several years. If you notice a significant increase in CPU temperatures, consider reapplying thermal paste. Carefully remove the heatsink, clean both the CPU and heatsink base thoroughly with isopropyl alcohol, and apply a fresh layer of thermal paste as per the instructions provided with the NT-H1 compound.

7. Troubleshooting

If you encounter issues with your NH-U12A chromax.Black cooler, refer to the following common problems and solutions:

- **High CPU Temperatures:**
  - Check if the heatsink is securely mounted and making proper contact with the CPU.
  - Verify that thermal paste was applied correctly and evenly.
  - Ensure fans are spinning and oriented correctly for optimal airflow.
  - Clean any dust accumulation from the heatsink fins and fan blades.
- **Excessive Fan Noise:**
  - Ensure fan cables are not obstructed or touching other components.
  - Check if Low-Noise Adaptors (L.N.A.) are installed if quieter operation is desired.
  - Verify fan settings in your motherboard's BIOS/UEFI or fan control software.
- **Fans Not Spinning:**
  - Check all fan connections to the motherboard's CPU_FAN header.
  - Ensure the Y-cable is correctly connected if used.
  - Verify fan control settings in BIOS/UEFI.

8. Technical Specifications

Product Dimensions	4.92"L x 4.41"W x 6.22"H
Brand	Noctua
Power Connector Type	4-Pin
Voltage	12 Volts
Cooling Method	Air
Compatible Devices	Desktop
Noise Level	22.6 Decibels
Material	Copper (base and heat-pipes), aluminium (cooling fins), soldered joints & nickel plating

Maximum Rotational Speed	1500 RPM
Air Flow Capacity	102.1 Cubic Feet Per Minute
UPC	768645700722
Item Model Number	NH-U12A chromax.black

9. Warranty and Support

9.1. Warranty Information

Your Noctua NH-U12A chromax.Black CPU Cooler is covered by a **6-year manufacturer's warranty**. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims.

9.2. Technical Support

For technical assistance, installation queries, or warranty claims, please visit the official Noctua website or contact their customer support. Detailed support resources, FAQs, and contact information can be found on their website.
Official Noctua Website: www.noctua.at

© 2025 Noctua. All rights reserved.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

https://manuals.plus/asin/B098XP1Y38

More documents and user manuals: **https://manuals.plus/**