

Cooler Master MLX-D24M-A18P2-R1

Cooler Master MasterLiquid ML240 Illusion CPU Liquid Cooler - User Manual

Model: MLX-D24M-A18P2-R1

INTRODUCTION

The Cooler Master MasterLiquid ML240 Illusion is an all-in-one (AIO) liquid cooling system designed for high-performance CPU cooling. It features a 3rd generation dual-chamber pump, two 120mm ARGB Halo fans, and a 240mm radiator, providing efficient heat dissipation and customizable lighting effects. This manual provides essential information for the proper installation, operation, and maintenance of your liquid cooler.

SAFETY INFORMATION

- Always disconnect power from your computer before installation or maintenance.
- Handle components with care to avoid damage.
- Ensure all connections are secure to prevent leaks or electrical shorts.
- Keep out of reach of children.
- Do not open the pump or radiator as this may void the warranty and cause damage.

PACKAGE CONTENTS

Verify that all components are present before beginning installation:

- MasterLiquid ML240 Illusion AIO Cooler (Radiator, Pump, Tubing)
- 2 x MasterFan MF120 Halo ARGB Fans
- Mounting Hardware for Intel Sockets (LGA 2066 / 2011-v3 / 2011 / 1200 / 1151 / 1150 / 1155 / 1156)
- Mounting Hardware for AMD Sockets (AM4 / AM3+ / AM3 / AM2+ / AM2 / FM2+ / FM2 / FM1)
- Gen 2 Addressable RGB Controller
- Thermal Paste
- User Manual (this document)



Image: The complete MasterLiquid ML240 Illusion AIO cooler unit, showcasing the radiator, two ARGB fans, and the illuminated pump.

SPECIFICATIONS

Feature	Detail
Model Number	MLX-D24M-A18P2-R1
Radiator Dimensions (L x W x H)	12.75" x 4.71" x 1.07" (324 x 119.6 x 27.2 mm)
Fan Size	2 x 120mm
Fan Type	MasterFan MF120 Halo ARGB

Feature	Detail
Fan Speed	Up to 1800 RPM
Air Flow Capacity	47.2 CFM (Cubic Feet Per Minute)
Noise Level	6-30 dBA
Pump Design	3rd Gen Dual-Chamber Pump
Cooling Method	Liquid
Compatible CPU Sockets	Intel: LGA 2066 / 2011-v3 / 2011 / 1200 / 1151 / 1150 / 1155 / 1156 AMD: AM4 / AM3+ / AM3 / AM2+ / AM2 / FM2+ / FM2 / FM1
Material	Aluminum (Radiator)
Power Connector Type	4-Pin
Voltage	12 Volts
Wattage	2.36 watts

SETUP AND INSTALLATION

Follow these steps carefully for proper installation. Refer to your motherboard manual for specific details regarding CPU socket and fan headers.

1. Prepare the CPU and Motherboard

- Ensure your CPU is correctly seated in its socket.
- Clean the CPU surface with isopropyl alcohol to remove any old thermal paste.
- Apply a small pea-sized amount of the included thermal paste to the center of the CPU's integrated heat spreader (IHS).

2. Install Radiator and Fans

- Attach the two MasterFan MF120 Halo fans to the radiator using the provided screws. Ensure the fan airflow direction is appropriate for your case (typically exhausting air out of the case or drawing cool air in).
- Mount the radiator assembly to an available 240mm fan mount in your PC case (e.g., top, front). Secure it with the appropriate screws.



Image: The radiator and pump unit, showing the flexible tubing connecting them. Fans are typically mounted to the radiator before installation into the PC case.

3. Install Pump/Cold Plate

Select the appropriate mounting hardware for your CPU socket type (Intel or AMD).

For Intel Sockets (LGA 1200/115X/2011/2066):

1. Attach the correct Intel mounting brackets to the pump unit.
2. Place the Intel backplate behind the motherboard, aligning the holes.
3. Carefully place the pump/cold plate assembly onto the CPU, aligning the standoffs with the backplate.
4. Secure the pump to the motherboard using the provided thumb screws, tightening them in a diagonal pattern until snug. Do not overtighten.

For AMD Sockets (AM4/AM3+/AM2+/FM2+/FM1):

1. Remove the stock AMD retention brackets from the motherboard, but keep the original AMD backplate.
2. Attach the correct AMD mounting brackets to the pump unit.
3. Carefully place the pump/cold plate assembly onto the CPU, aligning the hooks on the pump bracket with the plastic clips on the AMD backplate.
4. Secure the pump by tightening the screws on the pump bracket to the motherboard clips. Do not overtighten.



Image: A detailed view of the pump unit, highlighting its translucent housing and ARGB illumination, which sits directly on the CPU.

4. Connect Cables

- Connect the pump's 3-pin power cable to a CPU_FAN or AIO_PUMP header on your motherboard.
- Connect each fan's 4-pin PWM cable to a fan header on your motherboard (e.g., CPU_OPT or SYS_FAN).
- Connect the ARGB cables from the fans and pump to the included Gen 2 Addressable RGB Controller.
- Connect the Gen 2 ARGB Controller to a SATA power connector from your power supply and a USB 2.0 header on your motherboard for software control, or use the included 3-pin ARGB cable to connect it to a compatible motherboard ARGB header for motherboard software control.

OPERATING THE COOLER

Once installed, the MasterLiquid ML240 Illusion will automatically begin cooling your CPU upon system startup. The fans and pump will adjust their speed based on CPU temperature, managed by your motherboard's BIOS/UEFI settings or dedicated software.

ARGB Lighting Control

- **Using the Gen 2 ARGB Controller:** The included controller allows for standalone control of lighting effects and colors. Refer to the controller's specific instructions for button functions and modes.

- **Using Motherboard Software:** If connected to a compatible motherboard ARGB header, you can synchronize and customize lighting effects using your motherboard manufacturer's RGB software (e.g., ASUS Aura Sync, MSI Mystic Light Sync, GIGABYTE RGB Fusion, ASRock Polychrome Sync).
- **Cooler Master MasterPlus+ Software:** For advanced customization and synchronization with other Cooler Master ARGB products, download and install the MasterPlus+ software from the Cooler Master official website. This requires the ARGB controller to be connected via USB.

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. Ensure the fans are not spinning during cleaning to prevent damage.
- **Tubing and Connections:** Inspect the tubing and connections for any signs of wear, kinks, or leaks. Address any issues immediately.
- **Pump Noise:** A slight hum from the pump is normal. Excessive noise or gurgling may indicate air in the loop. Gently tilt your PC case while running to help dislodge air bubbles.
- **Thermal Paste:** Reapplying thermal paste is generally not required unless the cooler is removed from the CPU. If reinstallation occurs, clean off old paste and apply new thermal paste.

TROUBLESHOOTING

Problem	Possible Cause	Solution
CPU Overheating	Improper thermal paste application; pump not running; fans not spinning; radiator blocked by dust.	Reapply thermal paste; check pump and fan connections to motherboard; ensure pump is powered; clean radiator fins.
No ARGB Lighting	ARGB cables disconnected; controller not powered; software issue.	Verify all ARGB connections; ensure SATA power is connected to the controller; check motherboard RGB software or MasterPlus+ settings.
Pump Noise/Gurgling	Air trapped in the loop.	Gently tilt the PC case while the system is running to help move air bubbles to the radiator. Ensure the pump is not the highest point in the loop.
Fans Not Spinning	Fan cables disconnected; fan header disabled in BIOS; faulty fan.	Check fan connections to motherboard; verify fan settings in BIOS/UEFI; test fans on a different header if possible.

WARRANTY INFORMATION

Cooler Master products are backed by a limited warranty. The MasterLiquid ML240 Illusion typically comes with a 3-year warranty for spare part availability in the EU. For specific warranty terms and conditions, including duration and coverage in your region, please refer to the official Cooler Master website or contact their customer support. Keep your proof of purchase for warranty claims.

SUPPORT

For further assistance, technical support, or to download the latest MasterPlus+ software and drivers, please visit

the official Cooler Master support website:

www.coolermaster.com/support/

You can also find FAQs and community forums on their website.