Thermalright TL-M12Q X3

Thermalright TL-M12Q X3 120mm Chassis Fan Instruction Manual

Model: TL-M12Q X3

1. INTRODUCTION

The Thermalright TL-M12Q X3 is a high-performance 120mm chassis fan designed for efficient PC cooling. It features a silent operation, wireless splicing capability for easy installation, PWM intelligent temperature control, and an infinity mirror ARGB lighting effect to enhance your system's aesthetics. This manual provides detailed instructions for installation, operation, and maintenance to ensure optimal performance and longevity of your fan.

2. KEY FEATURES

- **Silent Fan Parameters:** 124x120x25mm size, 2000RPM±10% speed, noise ≤28.2dB(A), 68.9CFM airflow, 2.21mm H2O wind pressure.
- **Positive Air Outlet Design:** Fan blades rotate clockwise, providing 2000RPM for efficient case exhaust.
- **PWM Intelligent Temperature Control:** Automatically adjusts fan speed based on temperature when connected to the motherboard.
- **High Performance for Heat Dissipation:** 7-blade design with soft silicone corner pads for high heat dissipation and low noise.
- **Detail Optimization:** Made from UL CLASSA insulation grade PBT+PC material, supports PWM series control, 4-pin PWM power, and 3-pin ARGB lighting.
- **Versatile Use:** Can be used as a case fan or paired with a CPU cooler for enhanced cooling.

3. SETUP & INSTALLATION

Follow these steps to properly install your Thermalright TL-M12Q X3 chassis fans:

3.1 Fan Interconnection

The TL-M12Q X3 fans feature a wireless splicing design for easy connection between multiple units. Ensure fans are securely connected before wiring to the motherboard.

Long Lasting
S-FDB Bearing

Fan Motor equipped with high durability magnetic assist S-FDB (Fluid Dynamic Bearing) bearing, proving low-friction and low-noise operation. For a long service life span in your PC build. Thermalright fan with S-FDB bearing is maintenance-free, please do not disassemble.

Image: Wireless Fan Connection Mechanism. This image illustrates how multiple TL-M12Q X3 fans connect to each other using their integrated clips and pins for synchronized operation.

Soft-Touch Rubber pads provide vibration absorption

S-FDB(Stably-FDB) Bearing with magnetic design, stabilizes fan blade in motion.

The Triangular frame design allows more airflow and less drag, increasing static pressure performance on water cooling radiators.
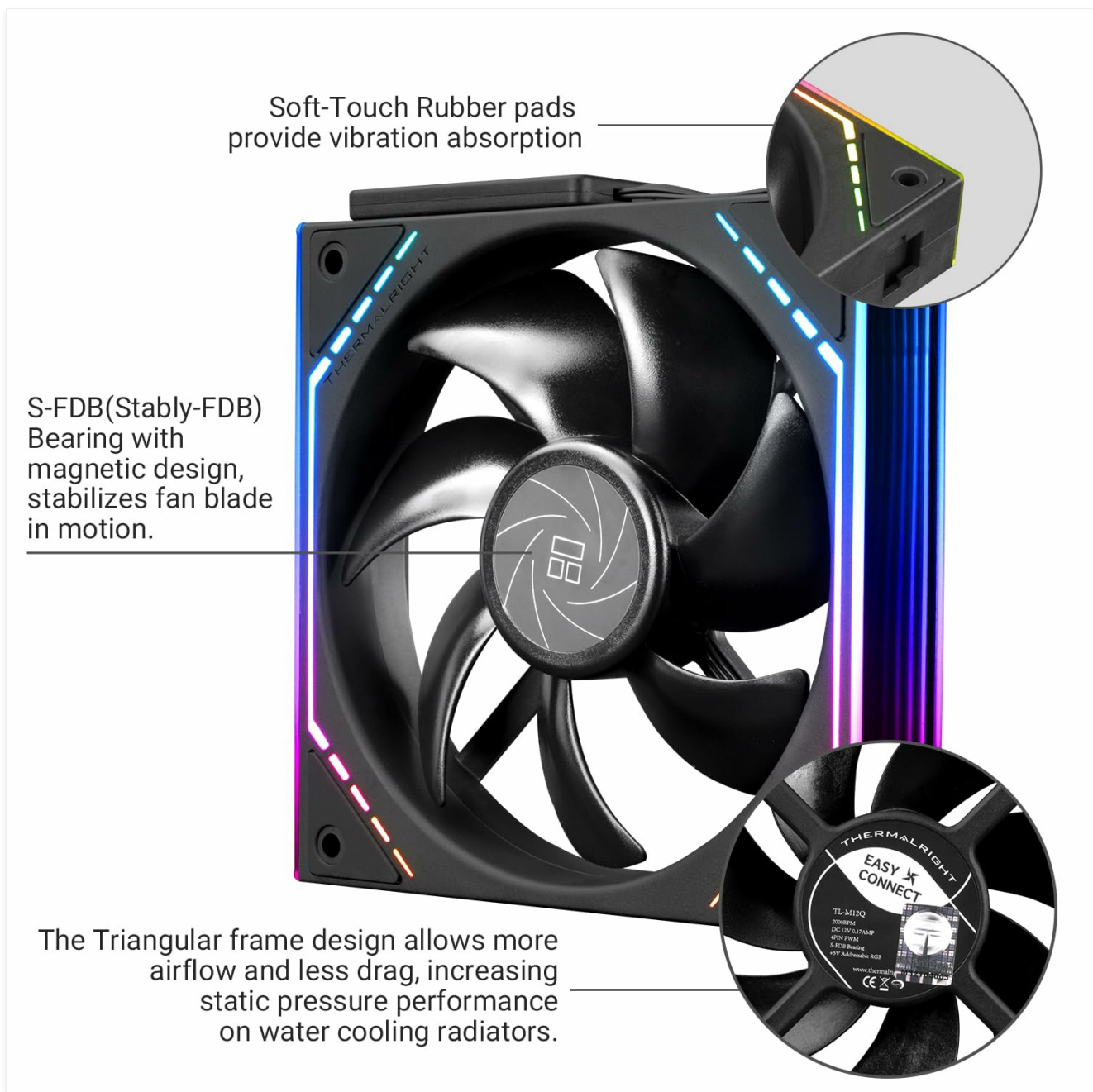
Image: Detail of Fan Interconnection Points. A close-up view showing the clips and pins used to connect two fans together, ensuring both power and signal synchronization.

3.2 Cable Connections

After connecting the fans together, attach the necessary cables for power, PWM control, and ARGB lighting. The fan cable includes an extra PWM connector for fan speed synchronization and 3-pin ARGB connectors for lighting effects. Always ensure the pin lid is on unused ARGB connectors to prevent short circuits.

Image: Fan Blade Design and Easy Connect Cables. This image highlights the 7-blade fan design and the integrated easy-connect power and lighting cables.

Your browser does not support the video tag.

Video: Thermalright TL-M12Q Easy Connect Fan Guide. This video demonstrates the easy connection process for Thermalright TL-M12Q series fans, including how to link multiple fans and connect them to the motherboard's 4-pin PWM chassis fan header and 3-pin 5V ARGB header.

3.3 Mounting in Chassis

Mount the connected fans into your PC chassis or onto a compatible CPU cooler. Ensure proper airflow direction for optimal cooling.

Wireless Connection Between Fans

Connect TL-M12Q series fans easily with clip deisgn, sync fan speed and ARGB lighting effects at the same time

Image: TL-M12Q X3 Fans Installed in a PC Chassis. This image shows multiple TL-M12Q X3 fans mounted inside a computer case, showcasing their infinity mirror lighting effect.

4. OPERATING INSTRUCTIONS

Once installed and connected, the Thermalright TL-M12Q X3 fans operate automatically with PWM control. The fan speed will adjust based on your system's temperature, providing efficient cooling when needed and quieter operation during lighter loads.

- **PWM Function:** The fan's 4-pin PWM connector allows the motherboard to control fan speed dynamically. No manual adjustment is typically required.
- **ARGB Lighting:** The 3-pin 5V ARGB connector allows synchronization with compatible motherboard software or ARGB controllers for customizable lighting effects.
- **Airflow Direction:** The M12Q series fans are designed with a positive air outlet, meaning the blade faces the inlet direction to serve as an exhaust fan for the case.

VERSATILE COOLING SCENARIOS

Chassis Airflow

Radiators

Image: Infinity Mirror ARGB Lighting Effect. This image displays the vibrant and dynamic infinity mirror ARGB lighting integrated into the fan frame.

5. MAINTENANCE

The Thermalright TL-M12Q X3 fan is designed for long-term, maintenance-free operation thanks to its S-FDB (Fluid Dynamic Bearing).

- **Cleaning:** Periodically clean dust from the fan blades and frame using compressed air or a soft brush to maintain optimal airflow and cooling performance.

- **Do Not Disassemble:** The S-FDB bearing is maintenance-free. Do not attempt to disassemble the fan, as this may damage the unit and void the warranty.

- **Vibration Absorption:** The soft silicone corner pads help absorb vibrations, contributing to quieter operation. Ensure these pads are intact.

Focus on performance from an engineering perspective

Static Pressure 7 blade design outputs rated 68.9CFM at 2000RPM

Easy connectpower
andlighting cable

Image: S-FDB Bearing Detail. A close-up view highlighting the S-FDB (Fluid Dynamic Bearing) technology, which ensures low-friction and low-noise operation.

6. TROUBLESHOOTING

If you encounter issues with your Thermalright TL-M12Q X3 fan, consider the following:

- **Fan Not Spinning:** Check if the 4-pin PWM cable is securely connected to the motherboard's chassis fan header. Ensure the motherboard is supplying power.

- **No ARGB Lighting:** Verify that the 3-pin 5V ARGB cable is correctly connected to the motherboard's ARGB header. Check your motherboard's ARGB software settings. Ensure any unused ARGB connectors have their pin lids on.

- **Excessive Noise:** Ensure the fan is securely mounted and not vibrating against other components. Check for any obstructions to the fan blades.

- **Poor Cooling Performance:** Verify the fan's airflow direction is appropriate for your case setup. Ensure there are no obstructions blocking airflow. Clean any accumulated dust.

- **Fans Not Synchronizing:** Confirm that all fans are properly spliced together and the main cable is correctly

connected to the motherboard.

7. SPECIFICATIONS

Product Dimensions	4.88"L x 4.72"W x 0.98"H (124x120x25mm)
Brand	Thermalright
Power Connector Type	4-Pin PWM
Voltage	12 Volts
Cooling Method	Air
Compatible Devices	Desktop
Noise Level	≤28.2 Decibels
Material	PBT+PC Plastic
Maximum Rotational Speed	2000 RPM
Air Flow Capacity	68.9 Cubic Feet Per Minute (CFM)
Lighting Interface	5V 3-Pin ARGB

8. WHAT'S IN THE BOX

The Thermalright TL-M12Q X3 package includes:

- Thermalright TL-M12Q X3 Chassis Fan(s)

9. WARRANTY AND SUPPORT

Thermalright products are manufactured to high quality standards. For warranty information, technical support, or service inquiries, please refer to the official Thermalright website or contact your retailer. Keep your proof of purchase for warranty claims.