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› Cooler Master MasterFrame 600 Freeform 2.0 Modular Platform ATX Mid-Tower Case Instruction Manual

Cooler Master MF600-KGNN-S00

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Model: MF600-KGNN-S00 | Brand: Cooler Master

1. INTRODUCTION

The Cooler Master MasterFrame 600 FreeForm 2.0 Modular Platform is designed to provide a highly customizable and adaptable foundation for PC enthusiasts and builders. This mid-tower case offers extensive compatibility for various components, including large GPUs and multiple radiators, ensuring optimal performance and cooling for high-end systems. Its unique modular design with magnetic side panels simplifies assembly and allows for flexible configurations to suit individual building needs.

2. SETUP

2.1 Unpacking and Inspection

Carefully remove all components from the packaging. Inspect the case and all included accessories for any signs of damage. Retain the original packaging for future transport or storage.



Image: The Cooler Master MasterFrame 600 case, showcasing its sleek design with a tempered glass side panel and a mesh front panel for airflow.

2.2 Component Installation Overview

The MasterFrame 600 features a modular design for flexible component installation. The internal layout can be adjusted to fit various motherboard sizes and cooling solutions.

Flexible Motherboard Support

Fits Mini-ITX through E-ATX boards, including back-connect (BTF) layouts, with 110 mm of routing space for a clean look.

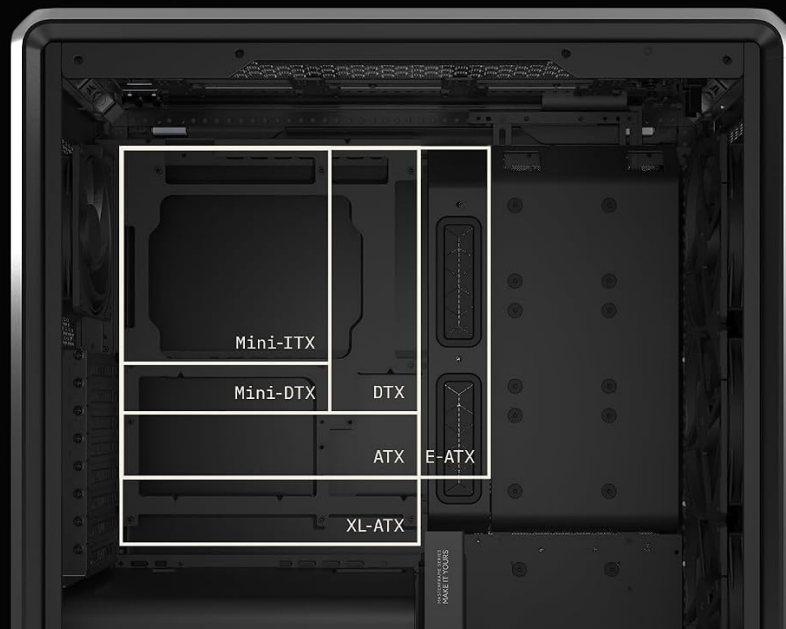


Image: An internal view of the MasterFrame 600, highlighting the spacious interior and various mounting points for components such as the motherboard, power supply, and storage drives.

2.3 Motherboard Installation

1. Ensure the appropriate standoffs are installed for your motherboard form factor (Mini-ITX to E-ATX).
2. Carefully align your motherboard with the standoffs and secure it using the provided screws.



Extensive Cooling Support

Room for up to eleven fans or multiple radiators keeps high-end CPUs and GPUs cool.

Image: A diagram illustrating the flexible motherboard support within the MasterFrame 600, accommodating Mini-ITX, Mini-DTX, DTX, ATX, E-ATX, and XL-ATX form factors.

2.4 Power Supply Installation

Mount the power supply unit (PSU) at the bottom of the case, securing it with screws from the rear.

2.5 Graphics Card (GPU) Installation

Install your graphics card into the appropriate PCIe slot on your motherboard. Utilize the included GPU support bracket to prevent sag and protect your card, especially during intensive use.

Versatile & Maker-Driven

Open-source design files and swappable panels make personalization straightforward—print, paint, or swap parts to match your style.



Image: The MasterFrame 600 with a large graphics card installed, demonstrating the ample GPU clearance available within the chassis.

Ample GPU Clearance

Accommodates today's flagship GPUs.



Image: A close-up view of the included GPU support bracket, designed to prevent graphics card sag.

2.6 Cooling System Installation

The MasterFrame 600 supports extensive cooling configurations, including up to three 420mm radiators or multiple fans. Plan your cooling setup based on your components' thermal requirements.



Swappable Panel

Ebony, Eucalyptus, Grey Oak, Stone Veneer & Walnut.

*Availability may differ based on region

Image: A diagram illustrating the extensive cooling support, showing locations for 420mm, 360mm, and 240mm radiators, as well as multiple 120/140mm fans.

2.7 Cable Management

Utilize the ample routing space and mounting points behind the motherboard tray for clean cable management. This ensures optimal airflow and a tidy build.

3. OPERATING

3.1 Powering On

Once all components are securely installed and cables are connected, plug the power cable into the PSU and a wall outlet. Press the power button on the front I/O panel to start your system.

3.2 Customization with FreeForm 2.0

The FreeForm 2.0 modular platform allows for significant customization. You can adjust and reconfigure the internal

structure to fit your specific needs. Magnetic side panels make this process straightforward.

FreeForm 2.0

FreeForm 2.0 emphasizes customization and adaptability across its range of products, empowering people to build systems that reflect their personal style. Custom. Open. Personal.



Image: The MasterFrame 600 with its magnetic side panels detached, demonstrating the FreeForm 2.0 modularity for easy access and customization.



Exo-Structure

Exposed aluminum frame boosts rigidity and lets you mount hardware exactly where you want it.

Image: Two MasterFrame 600 chassis displayed side-by-side, emphasizing the exposed aluminum frame (Exo-Structure) that provides rigidity and flexible mounting options.

You can also swap panels to match your style, with various options available (Ebony, Eucalyptus, Grey Oak, Stone Veneer & Walnut).

Open Source Architecture

Download the schematics, create custom parts with your preferred method (3D-print, laser-cut, etc.), and share them with the community.



Image: A selection of swappable panels in different finishes, including Ebony, Eucalyptus, Grey Oak, Stone Veneer, and Walnut, for personalized aesthetics.

4. MAINTENANCE

4.1 Cleaning

Regularly clean the exterior of the case with a soft, dry cloth. For dust accumulation inside, use compressed air to gently clear fans and components. Ensure the system is powered off and unplugged before cleaning.

4.2 Dust Filters

The MasterFrame 600 features mesh panels that act as dust filters. Periodically remove and clean these panels to maintain optimal airflow and prevent dust buildup inside the system.

Tool-Free Panel Removal

Quick-release hinges and thumbscrews make quick work of upgrades and cable tweaks.



Image: The MasterFrame 600 with its panels removed, illustrating the ease of access for cleaning and maintenance of internal components and mesh panels.

5. TROUBLESHOOTING

5.1 System Not Powering On

- Ensure the power cable is securely connected to both the PSU and the wall outlet.
- Verify that the PSU switch is in the "ON" position.
- Check all internal power connections, especially the 24-pin ATX and CPU power cables to the motherboard.
- Confirm that the front panel power button connector is correctly attached to the motherboard's F_PANEL header.

5.2 Overheating Issues

- Ensure all case fans and CPU/GPU coolers are functioning correctly.
- Clean any dust buildup from fans, radiators, and mesh panels.

- Verify proper airflow within the case; consider reconfiguring fan placement for better cooling.
- Check thermal paste application on CPU and GPU.

5.3 Component Fitment Issues

The MasterFrame 600 is highly modular. If a component does not fit, refer to section 2.3 (Motherboard Installation) and 3.2 (Customization with FreeForm 2.0) to reconfigure the internal layout. The open-source architecture allows for custom parts if needed.

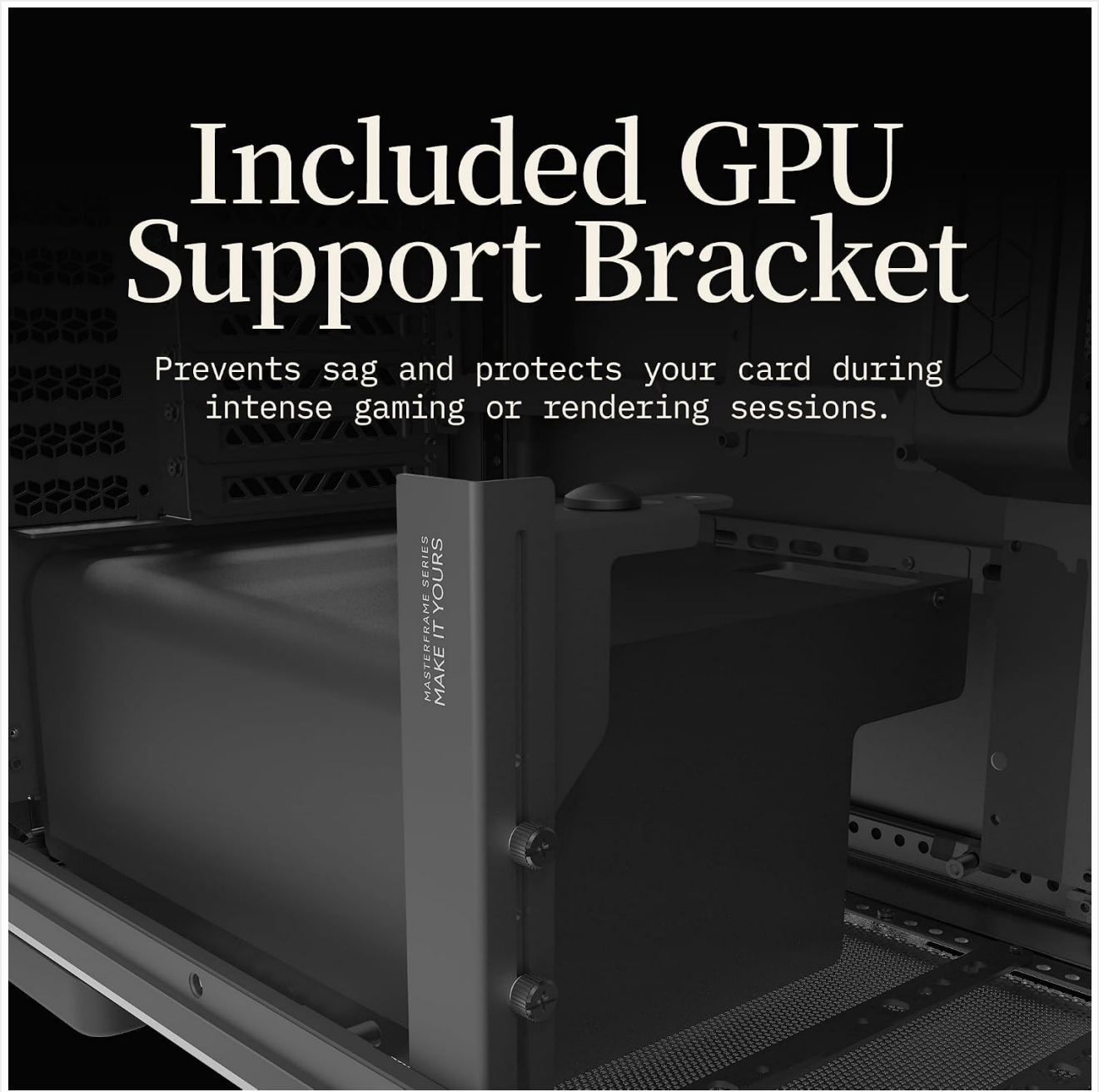


Image: The MasterFrame 600 highlighting its open-source architecture, allowing users to download schematics and create custom parts.

6. SPECIFICATIONS

Feature	Detail
Model Name	MasterFrame 600

Model Number	MF600-KGNN-S00
Case Type	Mid Tower
Motherboard Compatibility	ATX (Mini-ITX through E-ATX, XL-ATX)
Material	Aluminum, Tempered Glass
Color	Black
Item Weight	26.4 pounds
Product Dimensions (LxWxH)	20.91 x 21.42 x 10.28 inches
Max GPU Length	410mm
Max AIO Radiator Support	420mm (up to 3 radiators)
USB 3.0 Ports	1

7. WARRANTY AND SUPPORT

For warranty information and technical support, please visit the official Cooler Master website or contact their customer service. Keep your proof of purchase for warranty claims.
Online resources and support can be found at:www.coolermaster.com

