MSI MPG A850GS PCIE5

MSI MPG A850GS PCIE 5.1 ATX 3.1 Gaming Power Supply

User Manual - Model: MPG A850GS PCIE5

Introduction

This manual provides essential information for the proper installation, operation, and maintenance of your MSI MPG A850GS PCIE 5.1 ATX 3.1 Gaming Power Supply. Please read this manual thoroughly before use to ensure optimal performance and safety.



Figure 1: MSI MPG A850GS Power Supply and its retail packaging. The power supply unit is shown alongside its box, highlighting its compact design and modular cable connections.

Safety Information

- Always disconnect the power supply from the AC outlet before installing or removing any components.
- Do not open the power supply unit. High voltages are present inside, and opening the unit will void the warranty.
- Ensure proper grounding to prevent electrical shock.
- Use only the modular cables provided with this power supply. Using incompatible cables may damage the PSU or connected components.
- Install the power supply in a well-ventilated area to prevent overheating.

Package Contents

Verify that all items are present in the package:

- MSI MPG A850GS PCIE 5.1 ATX 3.1 Power Supply Unit
- Modular Cable Set (including 1x ATX 24-pin, 2x EPS 8-pin, 1x PCIe 5.1 12V-2x6, 3x PCIe 6+2-pin, 8x SATA, 4x Peripheral)
- AC Power Cord
- Mounting Screws
- Cable Ties / Cable Management Accessories



Figure 2: The power supply unit is shown with its complete set of modular cables, AC power cord, and mounting screws, all neatly organized.

Setup and Installation

Follow these steps to install your power supply unit:

1. **Mounting the PSU:** Secure the power supply unit into the designated PSU bay of your PC case using the provided mounting screws. Ensure the fan is oriented correctly for optimal airflow (typically facing downwards or upwards depending on case design).



Figure 3: The power supply unit's dimensions (15cm x 15cm x 8.6cm) are illustrated, along with an example of it installed in a PC case, demonstrating its compact fit.

2. **Connecting Essential Cables:** Connect the necessary modular cables to the power supply unit first, then to your motherboard and components. The fully modular design allows for cleaner cable management by only using the cables you need.



Figure 4: A detailed view of the power supply unit with all its modular cable ports labeled (12V-2x6, CPU/PCIe, SATA/Peripheral, ATX). Various cable types are shown next to their respective ports.

- **ATX 24-pin Cable:** Connect the large 24-pin cable from the PSU to the corresponding port on your motherboard. This provides primary power to the motherboard.
- **CPU (EPS) Cables:** Connect one or two 8-pin (4+4 pin) CPU cables to the CPU power ports on your motherboard. Modern high-performance CPUs often require two.
- **PCIe 5.1 (12V-2x6) Cable:** For compatible NVIDIA 40-series GPUs, use the dedicated 12V-2x6 cable. Ensure it is fully seated to prevent issues. The yellow-colored pins on the connector indicate proper seating.
- **PCIe (6+2-pin) Cables:** For other graphics cards, use the 6+2-pin PCIe cables. Connect as many as required by your GPU.
- **SATA and Peripheral Cables:** Connect SATA cables to your storage drives (SSDs, HDDs) and peripheral cables (Molex) for other accessories like fan hubs or older components.

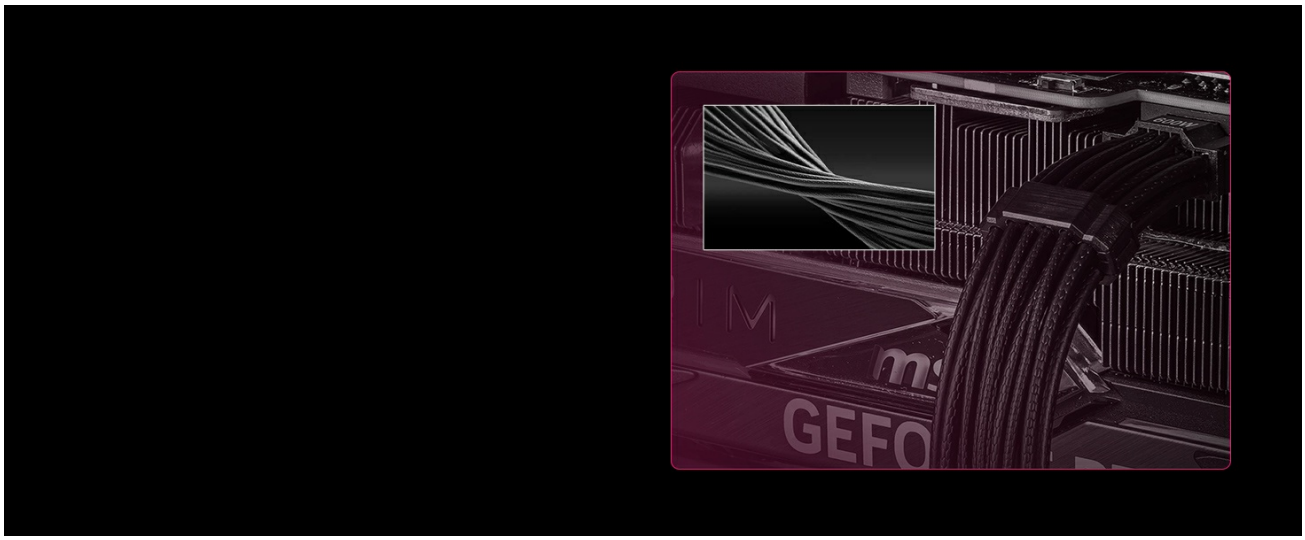


Figure 5: An illustration detailing the various cable types included with the power supply, such as ATX, EPS, PCIe 5.1, PCIe, SATA, and Peripheral, along with their respective lengths in millimeters.

3. **Connect AC Power:** Once all internal connections are secure, connect the AC power cord to the power supply unit and then to a wall outlet or surge protector.

Operating Instructions

The MSI MPG A850GS features a**Zero Fan Mode** for quiet operation under low loads.

- **Zero Fan Mode (Default):** When the button on the power supply is in the 'out' position, Zero Fan Mode is enabled. The fan will remain off until the power supply reaches a certain load or temperature threshold, ensuring silent operation during light use.
- **Disable Zero Fan Mode:** Press the button on the power supply unit to push it 'in'. This will disable Zero Fan Mode, causing the fan to spin continuously regardless of load. This may be preferred for maximum cooling in high-performance systems.

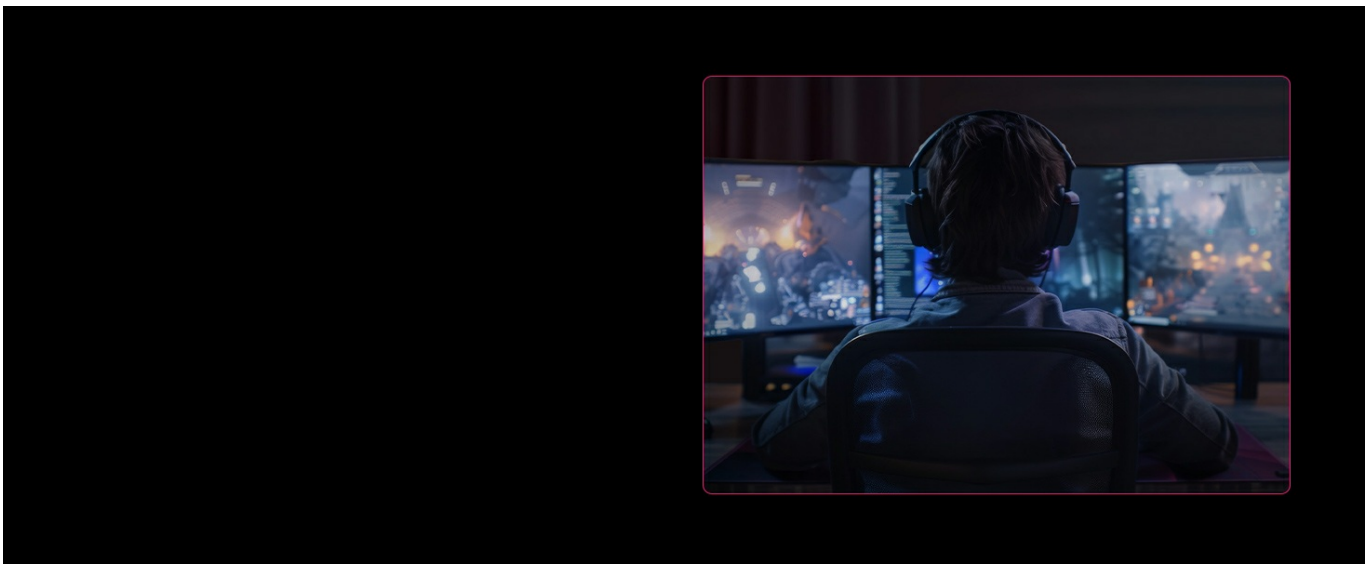


Figure 6: The power supply unit is shown with an illustration of its Zero Fan Mode switch, indicating both 'Mode on (Default)' and 'Mode OFF' positions.

Performance and Testing

The MSI MPG A850GS is designed for stable and efficient power delivery. Key features contributing to its performance

include:

- **80 Plus Gold Certified:** Ensures high efficiency, reducing wasted energy and heat.
- **ATX 3.1 Ready:** Designed to meet the latest power delivery standards for next-generation components, offering improved power excursion capabilities compared to ATX 2.0.
- **PCIe 5.1 Ready:** Equipped with a native 12V-2x6 connector for direct power delivery to high-power graphics cards.
- **100% Japanese 105°C Capacitors:** Utilizes high-quality capacitors for enhanced stability, reliability, and a longer lifespan.
- **Fluid Dynamic Bearing (FDB) Fan:** Provides quiet operation and increased durability for the cooling fan.

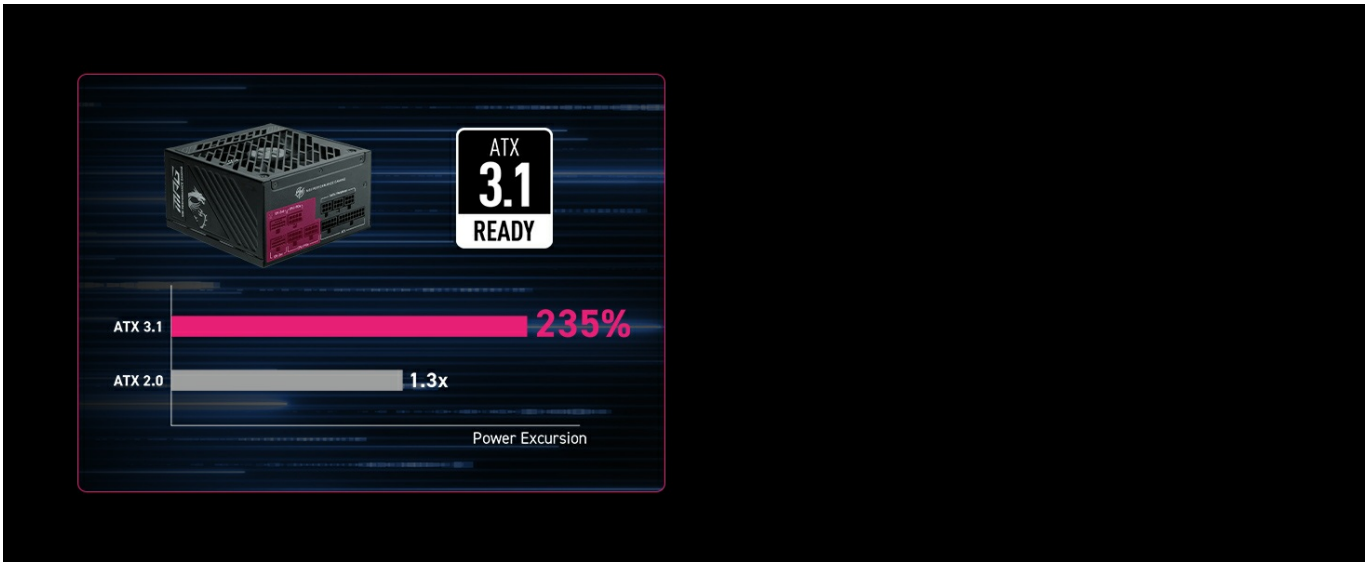


Figure 7: An illustration highlighting the power supply's ATX 3.1 readiness, showing a 235% improvement in power excursion compared to ATX 2.0.



Figure 8: The power supply's PCIe 5.1 readiness is depicted, showing its native 12V-2x6 connector and its capability to power two high-end graphics cards.

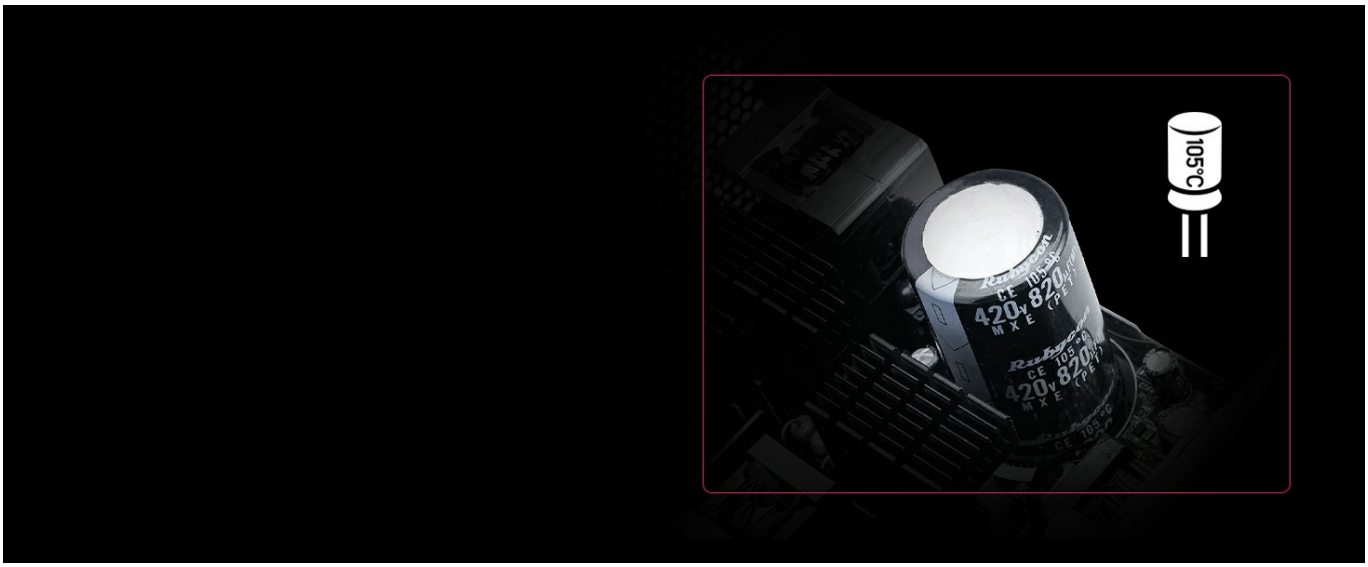


Figure 9: A close-up image of a 105°C Japanese capacitor, emphasizing the high-quality components used in the power supply for durability and performance.

Maintenance

Regular maintenance helps prolong the lifespan of your power supply:

- **Cleaning:** Periodically clean the exterior of the power supply and the fan grille to prevent dust buildup. Use compressed air to gently clear dust from inside the unit through the vents. Ensure the PSU is disconnected from power before cleaning.
- **Cable Inspection:** Occasionally check all connected cables for secure connections and any signs of wear or damage.

Troubleshooting

If you encounter issues with your power supply, try these common troubleshooting steps:

- **No Power:** Ensure the AC power cord is securely connected to both the PSU and the wall outlet. Check the power switch on the PSU is in the 'On' position. Verify all modular cables are fully seated.
- **System Instability/Crashes:** This could indicate insufficient power or a faulty component. Ensure your PSU wattage is adequate for your system's components. Check all power connections, especially to the motherboard and graphics card.
- **Fan Not Spinning:** If Zero Fan Mode is enabled (default), the fan will not spin under low loads. This is normal. If the fan does not spin under heavy load with Zero Fan Mode disabled, contact support.
- **Unusual Noises:** A slight coil whine may be audible under certain loads, which is generally normal. Excessive or grinding noises may indicate a fan issue.

Specifications

Brand	MSI
Model Name	MSI MPG A850GS PCIE 5.1 ATX 3.1
Item Model Number	MPG A850GS PCIE5
Wattage	850 watts

80 Plus Certification	Gold
Form Factor	ATX
Cooling Method	Air (Fluid Dynamic Bearing Fan)
Capacitors	100% Japanese 105°C Capacitors
Protection Features	OVP, OCP, OPP, OTP, SCP, UVP

Warranty and Support

The MSI MPG A850GS PCIE 5.1 ATX 3.1 Gaming Power Supply comes with a **10-Year Warranty**. For technical support, warranty claims, or further assistance, please visit the official MSI website or contact their customer service.
MSI Support: www.msi.com/support

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