

MSI A850GL

MSI MAG A850GL 850W ATX 3.0 Full Modular Power Supply User Manual

Model: A850GL

1. INTRODUCTION

The MSI MAG A850GL is an 850W, 80 Plus Gold certified, full modular power supply unit designed for gaming computers. It supports ATX 3.0 and PCIe 5.0 standards, offering enhanced power delivery and stability for modern components. Its compact size allows for easier installation and cable management within various PC cases.

This manual provides essential information for the proper installation, operation, maintenance, and troubleshooting of your MSI MAG A850GL power supply.

2. SAFETY INFORMATION

- Always disconnect the AC power cord from the wall outlet before installing or removing the power supply.
- Do not open the power supply casing. High voltages are present inside, and there are no user-serviceable parts. Opening the casing will void the warranty.
- Ensure proper grounding to prevent electrical shock.
- Install the power supply in a well-ventilated area. Do not block the ventilation openings.
- Use only the modular cables provided with this power supply. Using incompatible cables may damage the power supply and connected components.
- Avoid exposing the power supply to moisture or extreme temperatures.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- MSI MAG A850GL Power Supply Unit
- Modular Cable Set (including 24-pin ATX, 8-pin CPU, PCIe 5.0 16-pin, SATA, Molex cables)

- AC Power Cord
- Mounting Screws
- Cable Storage Bag



Image: Overview of the MSI MAG A850GL power supply unit and its complete set of modular cables, along with the cable storage bag.

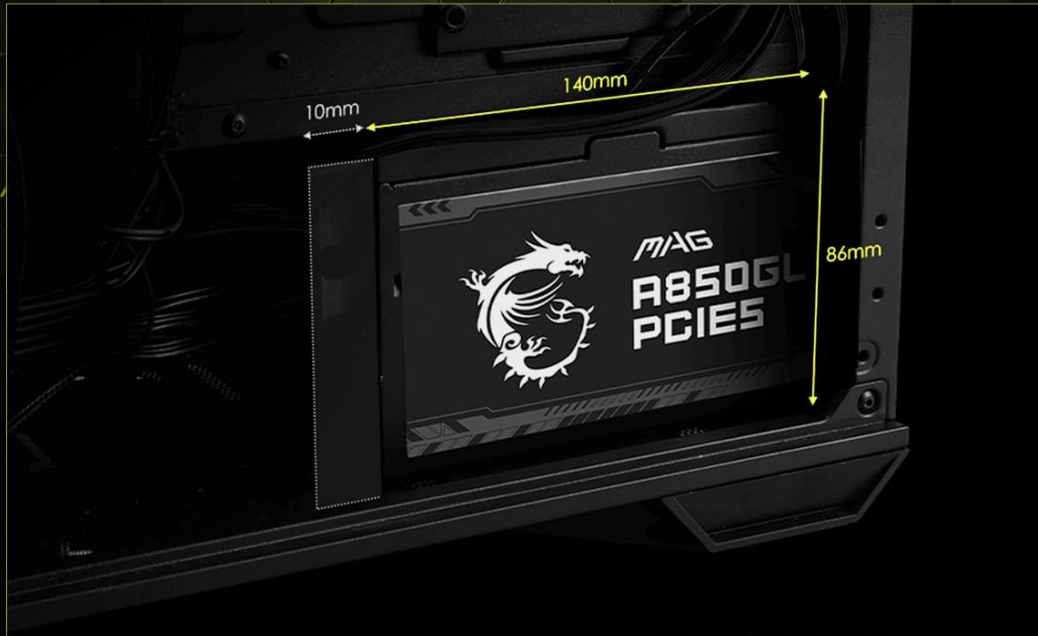
4. INSTALLATION (SETUP)

4.1 Preparation

1. Ensure your computer is completely powered off and unplugged from the wall outlet.
2. Open your computer case to access the power supply mounting area.
3. Discharge any static electricity by touching a grounded metal object, such as the unpainted metal frame of your PC case.

4.2 Mounting the Power Supply

1. Carefully place the MSI MAG A850GL into the power supply bay of your PC case. Ensure the fan is oriented correctly (typically facing down for bottom-mounted PSUs, or according to case design for optimal airflow).
2. Secure the power supply to the case using the provided mounting screws.



COMPACT SIZING

Smaller than typical PSUs on the market, this power supply unit that can save space and make it easier to organize cables in the computer case by freeing up more room inside.

Image: The compact dimensions of the MSI MAG A850GL power supply, highlighting its smaller footprint for easier installation in various PC cases.

4.3 Connecting Modular Cables

The MSI MAG A850GL is a full modular power supply, meaning you only connect the cables your system requires. This reduces cable clutter and improves airflow.

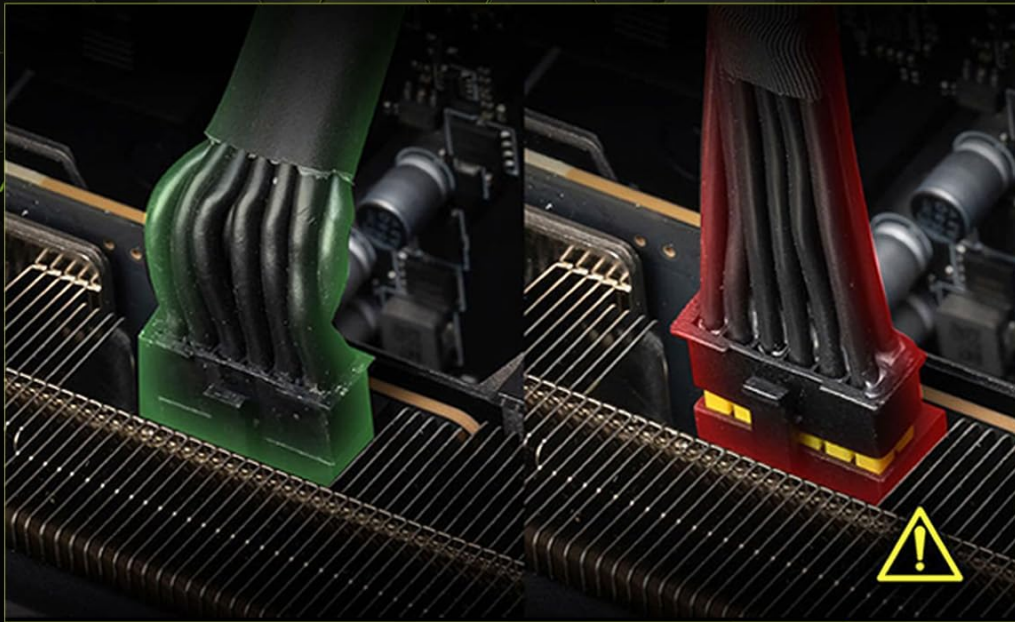


ONLY WHAT YOU NEED

The connectors that required by the build need to be used, significantly reducing cable clutter and simplifying the system's overall build. Additionally, the included cable pack provides a storage solution for any unused cables.

Image: The modular interface of the MSI MAG A850GL power supply, showing various ports for connecting only the necessary cables.

1. **24-pin ATX Motherboard Cable:** Connect the 24-pin cable to the corresponding port on the power supply and then to the 24-pin ATX connector on your motherboard.
2. **8-pin CPU (EPS) Cable:** Connect the 8-pin CPU cable to the power supply and then to the 8-pin (or 4+4-pin) CPU power connector on your motherboard. Modern motherboards may require two 8-pin CPU connectors.
3. **PCIe 5.0 16-pin (12VHPWR) Cable:** For compatible graphics cards, connect the 16-pin PCIe 5.0 cable to the power supply and then to your graphics card. Ensure the connection is secure. The dual-color design of the 16-pin cable helps confirm proper seating.



DUAL-COLOR 16-PIN CABLE

Our award-winning yellow 16-pin PCIe cable easily shows users if the cable has been plugged in properly.

Image: A close-up of the dual-color 16-pin PCIe cable, illustrating how the color coding indicates a properly seated connection.

4. **Standard PCIe Cables:** For graphics cards requiring 6+2-pin PCIe connectors, connect the appropriate cables from the power supply to your graphics card.
5. **SATA Power Cables:** Connect SATA power cables to the power supply and then to your SSDs, HDDs, and other SATA-powered devices.
6. **Molex Power Cables:** Connect Molex power cables for any peripherals that require them.

The MSI MAG A850GL is ATX 3.0 compliant, providing robust power delivery for high-performance systems, including support for power excursions up to 2x total power and 3x GPU power excursions.



The image shows a black MSI MAG A850GL PCIE5 power supply unit. It features a dragon logo and the model name 'MAG A850GL PCIE5' on the left side. The right side has various connectors including ATX, EPS, and SATA. Below the unit is a bar chart comparing ATX 3.0 and ATX 2.0 power excursion capabilities.

Standard	Power Excursion
ATX 3.0	2X
ATX 2.0	1.3x

ATX 3.0 COMPATIBLE

It has an output port that is compliant with PCIe 5.0 and Intel PSDG(Power Supply Design Guide) ATX 3.0, also the MAG A850GL PCIE5 power supply can handle up to 2x total power excursion and 3x GPU power excursion.

Image: A diagram illustrating the ATX 3.0 compatibility of the MSI MAG A850GL, showing its enhanced power excursion capabilities compared to ATX 2.0.

4.4 Connecting AC Power

Once all internal components are connected, plug the AC power cord into the power supply's AC inlet and then into a grounded wall outlet.

5. OPERATING

1. Ensure the power switch on the back of the power supply is in the 'ON' (I) position.
2. Press the power button on your computer case to start the system.
3. The MSI MAG A850GL features an 80 Plus Gold certification, indicating high power efficiency, which contributes to lower energy consumption and reduced heat generation.



80 PLUS GOLD CERTIFIED

The efficiency of your power supply directly influences your system's performance and your power consumption. The 80 PLUS Gold certification promises lower energy consumption and higher efficiency.

Image: The MSI MAG A850GL power supply, highlighting its 80 Plus Gold certification for energy efficiency.

The power supply utilizes a Full Bridge DC to DC design, which ensures higher conversion efficiency, stable output voltage, and quicker voltage adjustment for various system loads.



DC TO DC & FULL BRIDGE

A Full bridge DC to DC design achieves higher conversion efficiency, stabler output voltage, and quicker voltage adjustment for different usage scenarios.

Image: An illustration depicting the internal DC to DC and Full Bridge design of the MSI MAG A850GL power supply, contributing to its stable and efficient operation.

6. MAINTENANCE

- **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 the fan and vents. Always disconnect power before cleaning.
- **Airflow:** Ensure that the power supply's fan and ventilation openings are not obstructed by cables or other components within the PC case. Proper airflow is crucial for cooling and longevity.
- **Cable Management:** Organize modular cables to improve airflow and prevent them from interfering with cooling fans.

7. TROUBLESHOOTING

- **No Power:**

- Check if the AC power cord is securely plugged into both the power supply and the wall outlet.
 - Ensure the power switch on the back of the power supply is in the 'ON' (I) position.
 - Verify that all modular cables (24-pin ATX, CPU, PCIe) are firmly connected to both the power supply and the respective components.
 - Test the wall outlet with another device to ensure it is functional.
- **System Instability or Random Shutdowns:**
 - Ensure your system's power requirements do not exceed the 850W capacity of the power supply.
 - Check all power connections for looseness or improper seating.
 - Verify that the power supply has adequate ventilation and is not overheating.
- **Excessive Fan Noise:**
 - A certain level of fan noise is normal under load. If the noise is unusually loud or grinding, check for obstructions in the fan.
 - Ensure the power supply is securely mounted to prevent vibrations.

8. SPECIFICATIONS

Feature	Specification
Model Name	MAG A850GL
Brand	MSI
Output Wattage	850 Watts
Efficiency Certification	80 Plus Gold
Power Supply Design	Full Modular
Form Factor	ATX
ATX Standard	ATX 3.0
PCIe Standard	PCIe 5.0
Cooling Method	Air
Compatible Devices	Gaming Computer
Product Dimensions (L x W x H)	12 x 8.75 x 4.92 inches
Item Weight	6.38 pounds

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official MSI website or contact MSI customer service directly. Keep your proof of purchase for warranty claims.

You can find more information and support resources at the official MSI website www.msi.com

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