GIGABYTE

AORUS P850W Modular Power Supply User Manual

Model: GP-AP850GM | Brand: GIGABYTE

1. Introduction

This manual provides essential information for the installation, operation, and maintenance of your AORUS P850W 80 Plus Gold 850W Fully Modular Power Supply (Model: GP-AP850GM). This power supply unit (PSU) is designed to deliver stable and efficient power to your computer system. It features a fully modular design, high-quality Japanese capacitors, and a smart fan function for optimal performance and longevity.

2. Safety Information

Read all safety warnings and instructions carefully before installing or operating the power supply. Failure to follow these instructions may result in electric shock, fire, or damage to the product and connected components.

- Always disconnect the power cord from the wall outlet before installing, removing, or cleaning the power supply.
- Do not open the power supply casing. High voltages are present inside, even when the unit is unplugged. There are no user-serviceable parts inside.
- Ensure the power supply is installed in a well-ventilated area, free from excessive heat, humidity, and dust.
- Use only the modular cables provided with this power supply. Using incompatible cables may cause damage to the PSU or connected components.
- Connect the power supply to a grounded electrical outlet.
- Avoid placing objects on top of the power supply or blocking its ventilation openings.

3. Package Contents

Verify that all items are present in the package:

- AORUS P850W Power Supply Unit
- Modular Cable Set (including 24-pin ATX, CPU, PCIe, SATA, and Peripheral cables)
- AC Power Cord
- Mounting Screws
- User Manual (this document)



Image: The AORUS P850W power supply unit displayed alongside its retail packaging, showcasing the product and its branding.

4. Setup and Installation

Follow these steps for proper installation of your AORUS P850W power supply:

1. **Prepare Your System:** Ensure your computer is completely powered off and unplugged from the wall outlet. Open your computer case.
2. **Remove Old PSU (if applicable):** Disconnect all cables from your old power supply and remove it from the case.
3. **Mount the New PSU:** Carefully slide the AORUS P850W into the power supply bay of your computer case. Secure it with the provided mounting screws.
4. **Connect Modular Cables:**
    - Identify the necessary cables for your components (Motherboard 24-pin ATX, CPU 4+4 pin, PCIe 6+2 pin for graphics cards, SATA for drives, Peripheral for fans/accessories).

- Connect the required modular cables to the corresponding ports on the power supply unit. Refer to the port layout image below.
- Route the cables neatly through your case's cable management system.

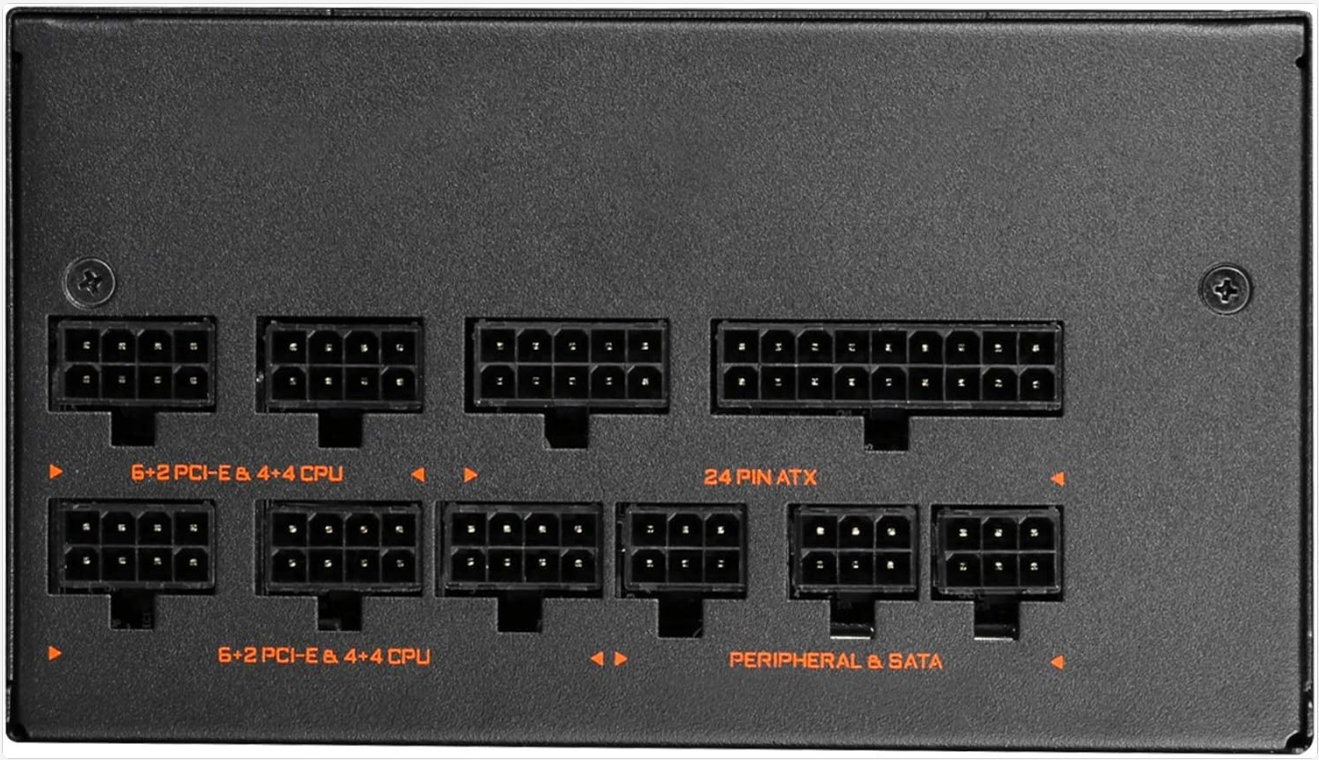


Image: A detailed view of the modular cable connection ports on the AORUS P850W, showing labels for 24-pin ATX, 6+2 pin PCIe, 4+4 pin CPU, and Peripheral & SATA connections.

5. **Connect Cables to Components:** Connect the other end of each modular cable to its respective component (motherboard, graphics card, SSD/HDD, etc.). Ensure all connections are firm and secure.
6. **Close Case and Connect Power:** Close your computer case. Connect the AC power cord to the power supply and then to a grounded wall outlet.

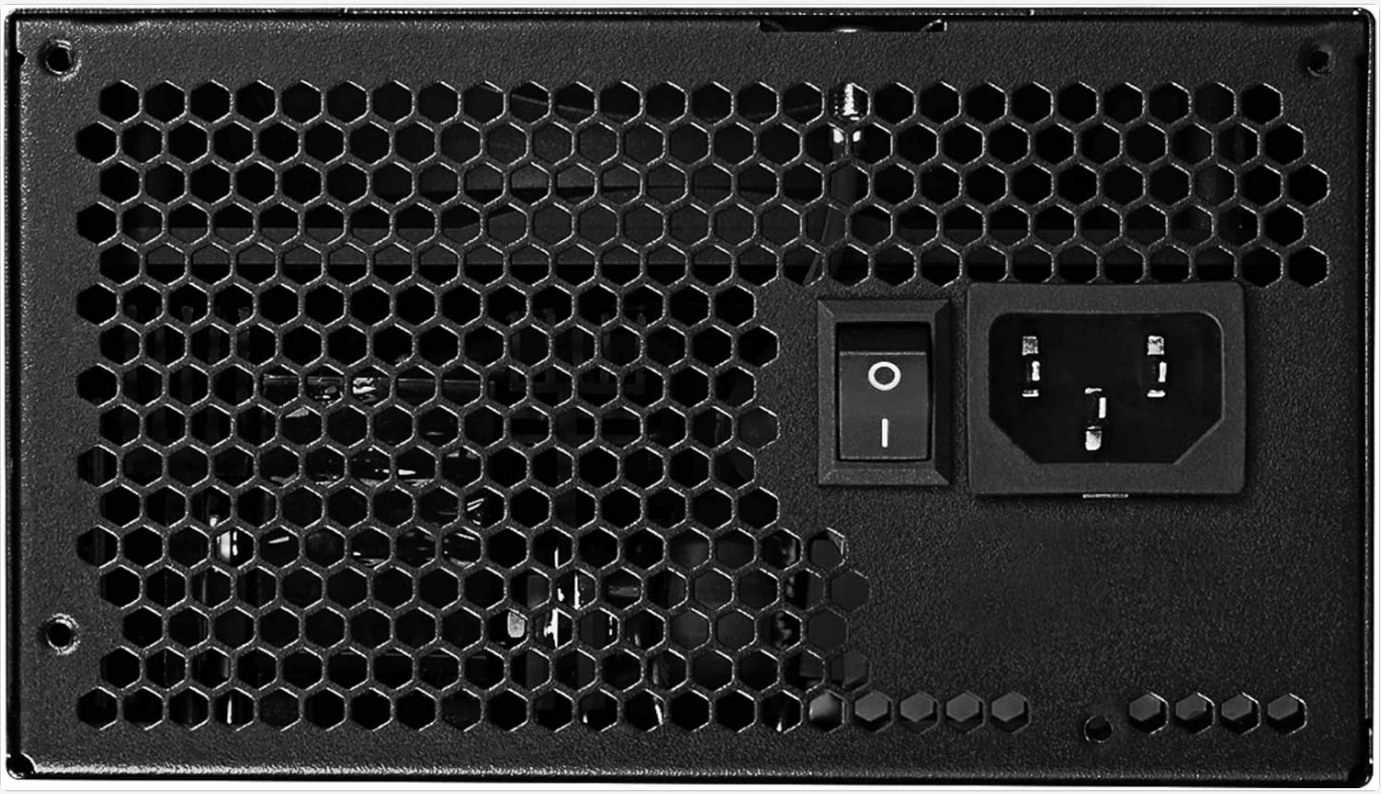


Image: The rear panel of the AORUS P850W power supply, featuring the main power switch and the AC power input socket.

5. Operating Instructions

After successful installation, you can power on your system:

- Ensure the power switch on the back of the PSU is in the "ON" (I) position.
- Press the power button on your computer case.
- The AORUS P850W features a 135mm 2 ball bearing Smart Fan with a Fan STOP function. This means the fan may remain off under low load conditions to minimize noise, activating only when necessary to maintain optimal temperatures. This is normal operation.



Image: A direct overhead view of the AORUS P850W power supply, highlighting the honeycomb fan grill and the central AORUS logo.

6. Maintenance

To ensure the longevity and optimal performance of your AORUS P850W power supply, consider the following maintenance tips:

- **Dust Removal:** Periodically clean dust from the power supply's fan grill and ventilation openings using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **Cable Management:** Ensure cables are not obstructing airflow within the computer case.
- **Environmental Conditions:** Operate the PSU within recommended temperature and humidity ranges. Avoid extreme conditions.

7. Troubleshooting

If you encounter issues with your AORUS P850W power supply, consider the following common troubleshooting steps:

- **No Power:**
  - Verify the AC power cord is securely connected to both the PSU and the wall outlet.
  - Ensure the power switch on the back of the PSU is in the "ON" (I) position.
  - Check all modular cable connections to the PSU and components (motherboard, CPU, GPU).
  - Test the wall outlet with another device to confirm it has power.
- **System Instability/Crashes:**
  - Ensure your system's power requirements do not exceed the PSU's 850W capacity.
  - Check for proper ventilation within your computer case to prevent overheating.
  - Verify all power connections are secure.
- **Fan Not Spinning:**
  - The AORUS P850W features a Fan STOP function. The fan will not spin under low load conditions. This is normal. It will activate when the temperature or load increases.
  - If the fan never spins even under heavy load, ensure there are no obstructions and contact support if the issue persists.

For more detailed troubleshooting or advanced issues, please refer to the official user manual PDF or contact GIGABYTE support.

8. Specifications

Feature	Specification
Model Name	GP-AP850GM
Output Wattage	850 Watts

Efficiency Certification	80 Plus Gold (90% efficiency at 50% load)
Form Factor	ATX
Cooling Method	Air (135mm 2 ball bearing Smart Fan with Fan STOP function)
Capacitors	100% Japanese Capacitors
Protection Features	OCP/OTP/OVP/OPP/UVP/SCP
Dimensions (LxWxH)	2.83 x 1.55 x 2.48 inches
Weight	2.76 pounds (1250 Grams)
Single +12V Rail	Yes

9. Warranty and Support

The AORUS P850W Power Supply comes with a 10-year warranty (warranty terms may vary by region). For warranty claims, technical support, or further assistance, please contact GIGABYTE customer service or visit their official website.

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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.

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