Redragon PSU007

Redragon RGPS-850W 80+ Gold 850 Watt Power Supply User Manual

Comprehensive guide for installation, operation, and maintenance of your Redragon RGPS-850W Power Supply.

1. Product Overview

The Redragon RGPS-850W is a high-performance 850-watt power supply unit (PSU) designed for modern computing systems. It features 80 Plus Gold certification for energy efficiency, full modular cabling for clean builds, and a smart ECO low-noise RGB fan. Built with 100% Japanese capacitors, it ensures reliability and stable power delivery.

Key Features:

- **80 Plus Gold Certified:** Ensures high energy efficiency, reducing heat and operating costs.
- **ATX 3.0 & PCIe 5.0 Ready:** Compatible with the latest high-performance GPUs, including NVIDIA RTX 30/40 Super and AMD GPUs.
- **100% Japanese Capacitors:** Provides superior reliability and durability for long-term stability.
- **Smart ECO Low Noise RGB Fan:** Features a Zero RPM mode where the fan activates only when the temperature reaches 60°C, ensuring quiet operation at lower loads.
- **Compact 160mm Size:** Offers broad compatibility with various PC cases and allows for improved cable management.
- **Full Modular Cables:** Reduces cable clutter and enhances airflow within the PC case.
- **Multiple RGB Modes:** Offers up to 9 RGB modes with 26 selectable colors to customize your system's aesthetics.



Figure 1.1: Redragon RGPS-850W 80+ Gold 850 Watt Power Supply.

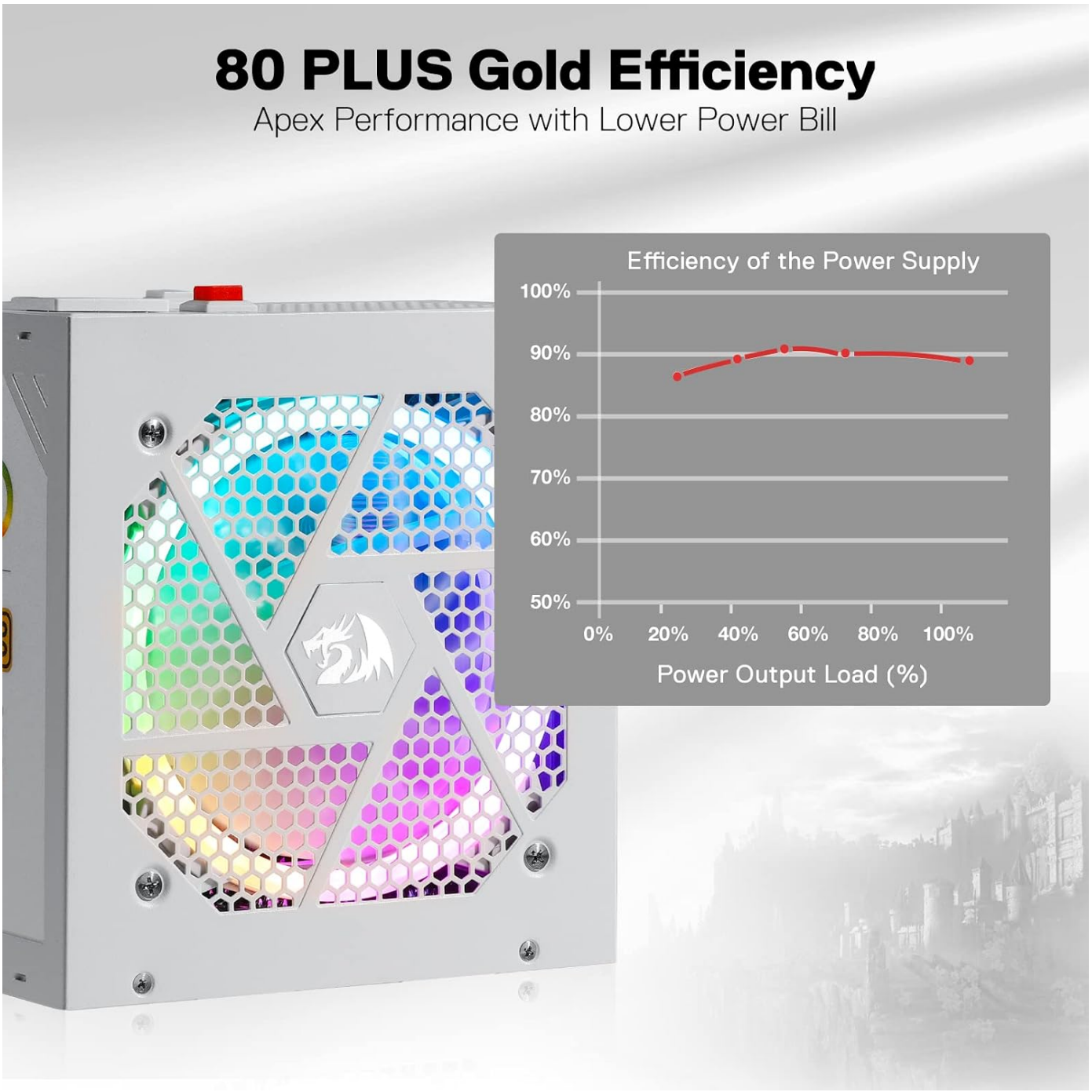


Figure 1.2: 80 Plus Gold Efficiency curve demonstrating high performance across various loads.



Figure 1.3: Illustration of the 9 RGB modes and 26 selectable colors for the fan illumination.

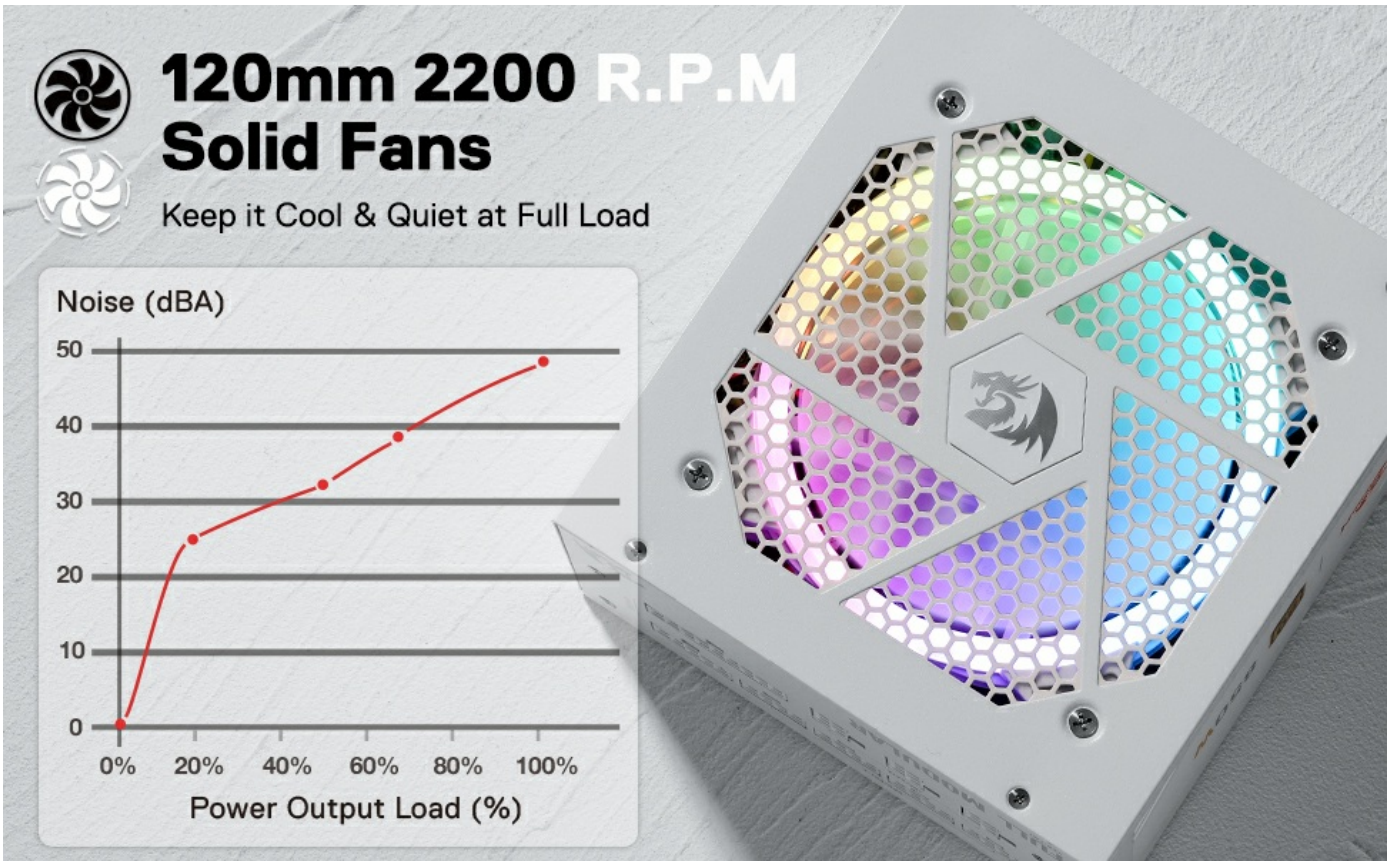


Figure 1.4: Noise (dBA) chart showing the low noise operation, especially with the Zero RPM mode below 60°C.

2. Setup and Installation

Before installing your new Redragon RGPS-850W power supply, ensure your computer is completely powered off and unplugged from the wall outlet. It is recommended to wear an anti-static wrist strap to prevent electrostatic discharge (ESD) damage to components.

2.1 Pre-Installation Checklist:

- Verify the wattage of your new PSU meets or exceeds the requirements of your system components.
- Ensure you have all necessary mounting screws and cables.
- Familiarize yourself with your PC case's layout for PSU installation.

2.2 Physical Installation:

1. Open your PC case. Locate the power supply mounting area, typically at the bottom or top rear of the case.
2. If replacing an old PSU, disconnect all cables from the old unit and remove it from the case.
3. Carefully slide the Redragon RGPS-850W PSU into the designated bay. Ensure the fan is facing the correct direction (usually downwards if there's a bottom vent, or upwards if there isn't).
4. Secure the PSU to the case using the provided screws.

2.3 Cable Connection:

The RGPS-850W is a fully modular power supply, meaning you only connect the cables you need, reducing clutter.

- **24-Pin ATX Cable:** Connect the large 24-pin cable to your motherboard's main power connector.
- **CPU Power (EPS) Cables:** Connect the 4+4 pin or 8-pin CPU power cables to the corresponding ports on your motherboard. The RGPS-850W supports dual CPU P8 (4+4) for server motherboards.
- **PCIe Power Cables:** For your graphics card(s), connect the appropriate 6+2 pin PCIe cables. This PSU is PCIe 5.0 ready for high-performance GPUs.
- **SATA Power Cables:** Connect SATA cables to your storage drives (SSDs, HDDs) and other SATA-powered devices.
- **Peripheral (Molex) Cables:** Use Molex cables for older peripherals or case fans if needed.

Ensure all connections are firm and properly seated. Utilize cable management features of your case to route cables neatly, improving airflow and aesthetics.



Figure 2.1: Full modular cabling design for optimized cable management.

What Cables Included?

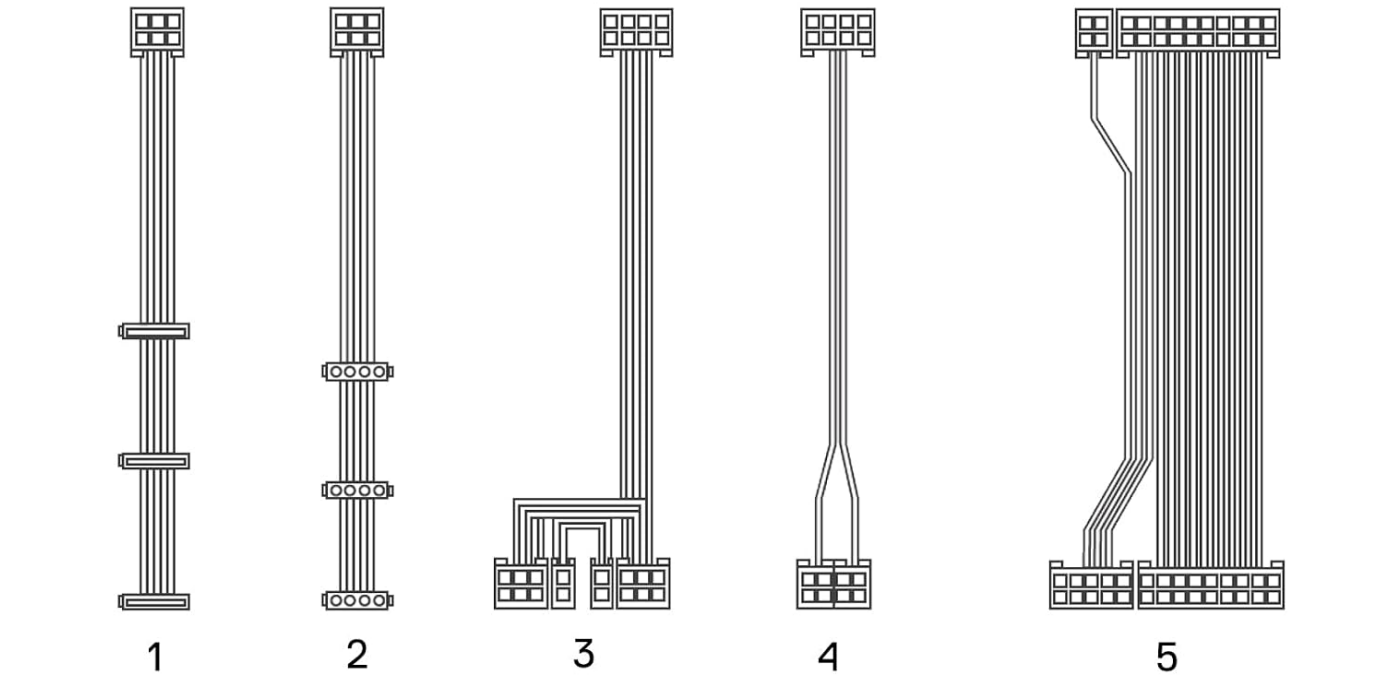


Figure 2.2: Diagram showing the types of cables included with the RGPS-850W power supply.

3. Operation

Once the power supply is securely installed and all necessary cables are connected, you can power on your system.

3.1 Power On/Off:

1. Ensure the main power switch on the back of the PSU is in the 'OFF' (0) position.
2. Connect the AC power cord to the PSU and then to a wall outlet or surge protector.
3. Flip the main power switch on the PSU to the 'ON' (I) position.
4. Press your computer's power button to start the system.

3.2 RGB Fan Control:

The RGPS-850W features an RGB fan with multiple lighting modes. Control is typically done via a button on the PSU itself or through compatible motherboard RGB software if a sync cable is provided (check your specific model's accessories).

- **Mode Cycling:** Press the RGB control button on the PSU to cycle through the 9 available lighting modes and 26 colors.

- **Zero RPM Mode:** The fan operates in Zero RPM mode below 60°C for silent operation. Above this temperature, the fan will automatically spin up to maintain optimal cooling.

4. Maintenance

Proper maintenance ensures the longevity and optimal performance of your power supply.

4.1 Cleaning:

- Regularly clean dust from your PC case and PSU fan grille using compressed air. Dust accumulation can impede airflow and lead to overheating.
- Ensure the PC is powered off and unplugged before cleaning.

4.2 Airflow:

- Maintain good airflow within your PC case. Ensure intake and exhaust fans are functioning correctly.
- Avoid placing your PC in enclosed spaces that restrict air circulation.

5. Troubleshooting

If you encounter issues with your Redragon RGPS-850W power supply, refer to the following common problems and solutions:

- **No Power:**
  - Check if the PSU's main power switch is in the 'ON' (I) position.
  - Ensure the AC power cord is securely connected to both the PSU and the wall outlet.
  - Verify all modular cables are firmly connected to both the PSU and the respective components (motherboard, GPU, drives).
  - Test the wall outlet with another device to ensure it has power.
- **System Shuts Down Randomly:**
  - This could indicate an overloaded PSU or overheating. Check if your system's power consumption exceeds the PSU's 850W capacity.
  - Ensure adequate airflow and clean any dust buildup inside the PSU and case.
  - Verify that the PSU fan is spinning when the system is under load (above 60°C).
- **Excessive Fan Noise:**
  - The fan's speed increases with load. If noise is excessive under light load, check for dust accumulation.
  - Ensure the PSU is properly mounted and not vibrating against the case.
  - The Zero RPM mode should keep the fan off at low temperatures. If the fan is constantly spinning at low loads, there might be an issue.
- **RGB Lighting Not Working:**
  - Press the RGB control button on the PSU to cycle through modes.
  - If applicable, ensure the RGB sync cable is correctly connected to your motherboard's RGB header and controlled via software.

6. Specifications

Detailed technical specifications for the Redragon RGPS-850W Power Supply:

Feature	Specification
Model Name	RGPS-850W
Item Model Number	PSU007
Output Wattage	850 Watts
Form Factor	ATX12V
Efficiency Certification	80 Plus Gold
Capacitors	100% Japanese Capacitors
Cooling Method	Air (Smart ECO Low Noise RGB Fan)
Dimensions (L x W x H)	11.81 x 7.87 x 4.72 inches (160mm Compact Size)
Item Weight	5.7 pounds
Compatible Devices	PC
Connector Type	ATX (Fully Modular)
Safety Protections	OVP/OCP/OPP/OTP/UVP/SCP

7. Warranty and Support

Redragon stands behind the quality of its products. The RGPS-850W Power Supply comes with a **5-year warranty** from the date of purchase, covering defects in materials and workmanship.

7.1 Warranty Claims:

For warranty service, please retain your proof of purchase. Contact Redragon customer support or the retailer from whom you purchased the product.

7.2 Technical Support:

If you require technical assistance or have questions not covered in this manual, please visit the official Redragon website for support resources, FAQs, and contact information. You may also reach out to Amazon customer support for product-related inquiries.

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

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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