

ASRock SL-850G

ASRock Steel Legend SL-850G 850W Power Supply Instruction Manual

Model: SL-850G

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your ASRock Steel Legend SL-850G 850W Full Modular Power Supply. Please read this manual thoroughly before installation to ensure proper setup and safe operation. This power supply unit (PSU) is designed to deliver stable and efficient power to your personal computer system.

2. KEY FEATURES

- **80 PLUS Gold Certified:** Ensures high power efficiency, reducing heat generation and operating costs.
- **Cybenetics Platinum and LAMBDA A+ Certified:** Guarantees superior efficiency and quiet operation.
- **ATX3.1 & PCIe5.1 Ready:** Fully compliant with the latest ATX 3.1 and PCIe 5.1 standards, including native 12V-2x6 cable support for modern graphics cards.
- **Fully Modular Cable Design:** Allows for cleaner cable management and improved airflow by connecting only the necessary cables.
- **100% Highly Reliable Japanese Capacitors:** Utilizes high-quality Japanese capacitors rated for 105°C, ensuring long-term stability and durability.
- **iCool Intelligent Fan Control Mode:** Optimizes fan speed based on load and temperature, providing quiet operation at low to medium loads.
- **Built-in 5V BOOST Function:** Provides stable 5V power delivery.
- **135mm Striped Axial FDB Fan:** Features a Fluid Dynamic Bearing (FDB) fan for quiet operation and extended lifespan.

3. PACKAGE CONTENTS

Verify that all items are present in the package before proceeding with installation.



Image: Contents of the ASRock Steel Legend SL-850G Power Supply package.

- ASRock Steel Legend SL-850G Power Supply Unit
- AC Power Cable
- Modular Cable Set (MB 24-Pin, CPU 4+4 Pin, PCIe 12V-2x6, PCIe 6+2 Pin, SATA, PATA)
- Installation Guide / User Manual
- ATX 24-Pin PSU Tester
- Cable Bag
- Velcro Cable Ties
- Cable Ties
- Mounting Screws

CABLES INCLUDED

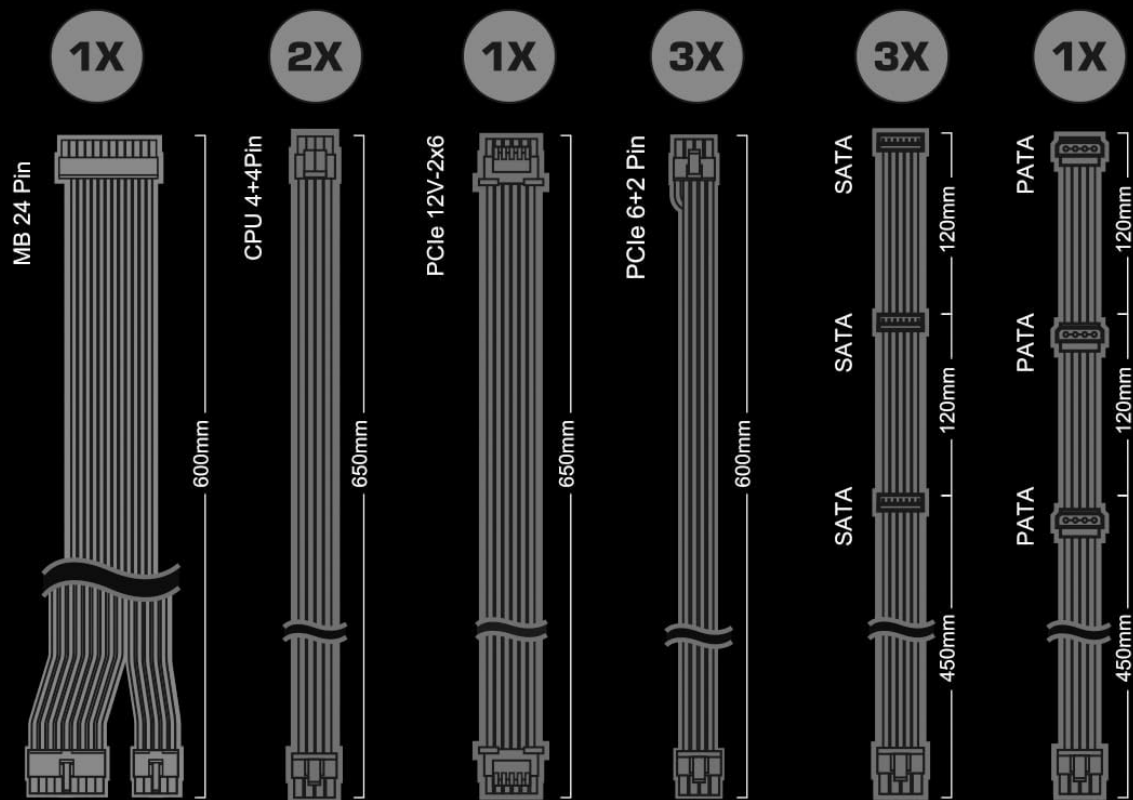


Image: Detailed diagram of included modular cables and their lengths.

4. SETUP AND INSTALLATION

Proper installation is crucial for the performance and longevity of your power supply. Always ensure your system is powered off and unplugged from the wall outlet before installation.

4.1 Safety Precautions

- Disconnect the AC power cord from the wall outlet before handling the PSU or any internal components.
- Ensure proper grounding to prevent electrostatic discharge (ESD).
- Do not open the PSU casing. High voltages are present inside, even when unplugged.

4.2 Physical Installation

1. Mount the PSU into the designated power supply bay in your computer case. Ensure the fan is facing the correct direction for optimal airflow (usually facing down if there's a bottom vent, or up if it's a top-mounted PSU).
2. Secure the PSU to the case using the provided mounting screws.

4.3 Cable Connections

Connect only the necessary modular cables to your components. This improves cable management and airflow within your case.

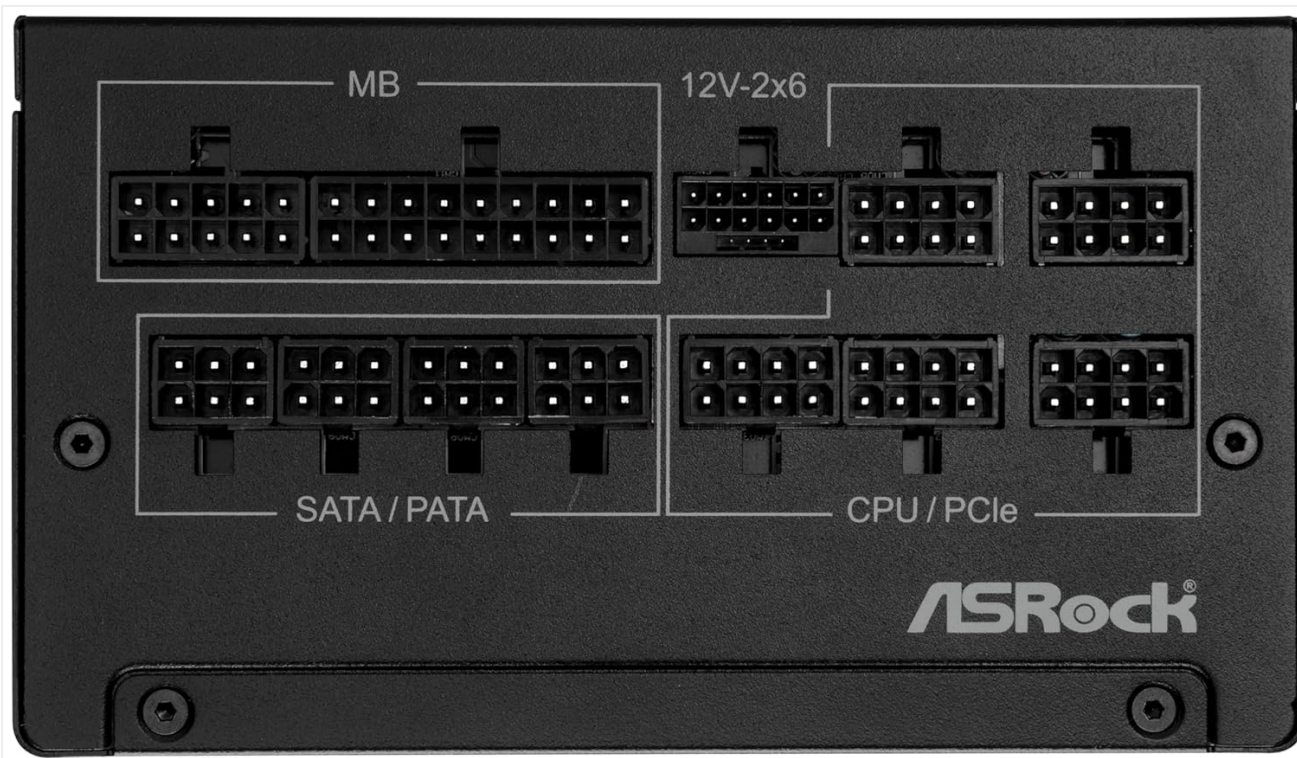


Image: Side view of the power supply with modular cable connections clearly labeled.

- **Motherboard Power:** Connect the 24-pin ATX cable to your motherboard.
- **CPU Power:** Connect the 4+4-pin EPS/ATX12V cable(s) to your motherboard's CPU power connector(s).
- **PCIe Power (Graphics Cards):** For modern graphics cards requiring a 12V-2x6 connector, use the dedicated cable. Ensure the connector is fully seated. For other graphics cards, use the 6+2-pin PCIe cables.

PCIe 12V-2X6 CABLE (105°C)

PCIe 12V-2X6 Cable



- Dual Color Connector Design
- High Quality and Durable Cable Materials

Image: Proper connection of the PCIe 12V-2x6 cable, highlighting the importance of full insertion.

- **SATA Power:** Connect SATA power cables to your storage drives (SSDs, HDDs) and other SATA-powered devices.
- **PATA Power (Molex):** Connect PATA power cables to older peripherals or case fans if needed.

After connecting all necessary internal cables, connect the AC power cord to the PSU and then to a wall outlet.

5. OPERATING INSTRUCTIONS

5.1 Powering On/Off

1. Ensure all cables are securely connected.
2. Flip the main power switch on the back of the PSU to the 'I' (On) position.
3. Power on your computer system via the case power button.
4. To power off, shut down your operating system normally, then flip the main power switch on the PSU to the 'O' (Off) position.



Image: Rear panel of the power supply, indicating the main power switch and iCool fan control switch.

5.2 iCool Intelligent Fan Control

The ASRock Steel Legend SL-850G features an iCool switch on the rear panel. This switch controls the fan's operation mode:

- **iCool ON:** The fan will remain off at low to medium loads for silent operation. It will activate automatically when the load or temperature increases.
- **iCool OFF:** The fan will operate continuously, regardless of the load or temperature. This provides maximum cooling but may result in higher noise levels.

Choose the mode that best suits your preference for noise and cooling performance.

iCOOL MODE CURVE DIAGRAM

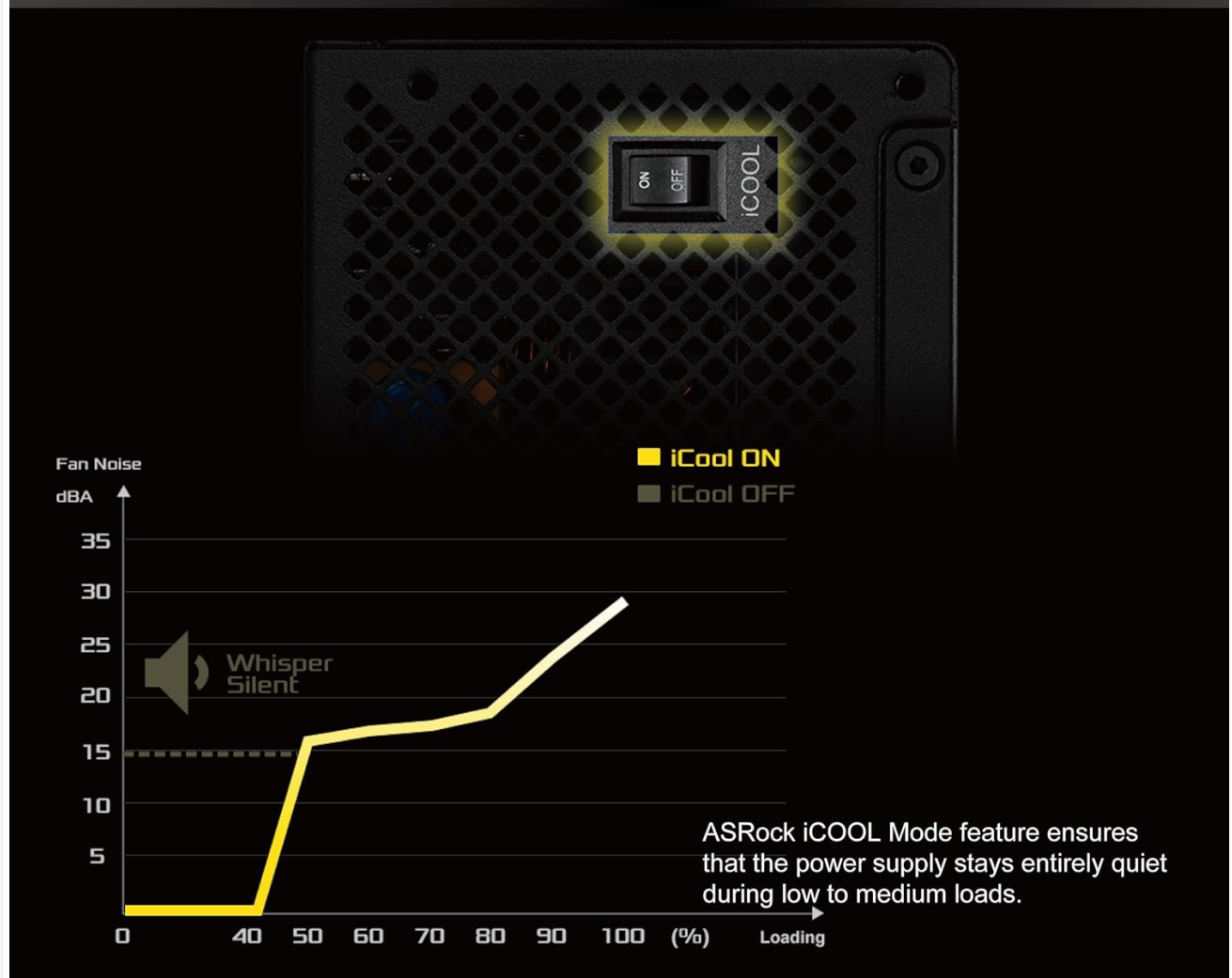


Image: iCool Mode Curve Diagram, showing fan noise levels versus load percentage.

6. MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your power supply.

- **Cleaning:** Periodically clean the exterior of the PSU and its fan grille to prevent dust buildup. Use compressed air to gently clear dust from the fan blades and heatsinks. Ensure the system is powered off and unplugged before cleaning.
- **Cable Management:** Ensure cables are neatly routed and do not obstruct airflow within the case.
- **Environment:** Operate the PSU in a well-ventilated area, away from excessive heat, humidity, and direct sunlight.

7. TROUBLESHOOTING

If you encounter issues with your power supply, try the following troubleshooting steps:

- **No Power:**

- Check if the AC power cord is securely connected to both the PSU and the wall outlet.
- Ensure the main power switch on the PSU is in the 'I' (On) position.
- Verify that the wall outlet is functional by plugging in another device.
- Use the included 24-pin PSU tester to check if the PSU powers on independently.

- **System Instability/Random Shutdowns:**

- Ensure all modular cables, especially the 12V-2x6 PCIe cable, are fully seated and properly connected.
- Check for any loose connections to the motherboard, CPU, or graphics card.
- Verify that your system's power requirements do not exceed the PSU's 850W capacity.

- **Fan Not Spinning (iCool ON):**

- If iCool mode is ON, the fan may not spin at low loads. This is normal operation.
- If the fan does not spin even under load, try switching iCool mode OFF to force continuous fan operation. If it still doesn't spin, contact support.

- **Unusual Noises:**

- Ensure no cables are obstructing the fan.
- If the noise persists and is not related to fan operation, contact support.

If these steps do not resolve the issue, please refer to the Warranty and Support section for further assistance.

8. SPECIFICATIONS

Feature	Specification
Model	SL-850G
Output Wattage	850 Watts
80 PLUS Certification	Gold
Cybenetics Certification	Platinum, LAMBDA A+
Form Factor	ATX
Power Supply Design	Full Modular
Cooling Method	Air (135mm FDB Fan)
Compatible Devices	Personal Computer
Connector Type	ATX
Product Dimensions (L x W x H)	5.91 x 5.91 x 3.39 inches
Item Weight	3 pounds

9. WARRANTY AND SUPPORT

The ASRock Steel Legend SL-850G Power Supply comes with a remarkable **10-Year Warranty**, covering defects in

materials and workmanship under normal use. For warranty claims or technical support, please contact ASRock customer service through their official website or the contact information provided in your product packaging.

For the latest drivers, FAQs, and support resources, visit the official ASRock website:www.asrock.com

10. PRODUCT VIDEOS

ASRock Power Supplies Steel Legend Series Features



Video: An overview of the key features of the ASRock Steel Legend series power supplies, including design, efficiency, and cooling.

ASRock Power Supplies



Video: A general introduction to ASRock's power supply lineup, showcasing various models and their design elements.