

Segotep GM850

Segotep GM850 850W Power Supply User Manual

ATX 3.1 & PCIe 5.1 Full Modular 80 Plus Gold Certified Gaming PSU

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your Segotep GM850 850W Power Supply. Please read this manual thoroughly before installation and retain it for future reference. The Segotep GM850 is a high-performance, fully modular power supply designed to meet the demands of modern computing systems, including those with NVIDIA RTX 20/30/40/50 Series and AMD Graphics Cards.



Image 1.1: Segotep GM850 850W Power Supply and Retail Box

2. SAFETY INFORMATION

Observe the following safety precautions to prevent injury or damage to your equipment:

- Always disconnect the power cord from the wall outlet before installing, removing, or cleaning the power supply.
- Do not open the power supply unit. High voltages are present inside, and there are no user-serviceable parts. Opening the unit will void the warranty.
- Ensure the power supply is installed in a well-ventilated area, free from excessive heat, humidity, or 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 into the fan grille or ventilation openings of the power supply.

SAFETY PROTECTION

Full guardian circuit protections to keep your hardware safe



Image 2.1: Safety Protection Features (OVP, OCP, OPP, SPD, OTP, UVP, SCP)

3. PACKAGE CONTENTS

Verify that all items are present in your Segotep GM850 850W Power Supply package:

- Segotep GM850 850W Power Supply Unit
- AC Power Cord
- Modular Cable Set (see Image 3.1 for details)
- Mounting Screws
- 24-Pin Bridge Tool (for testing, if included)
- User Manual (this document)

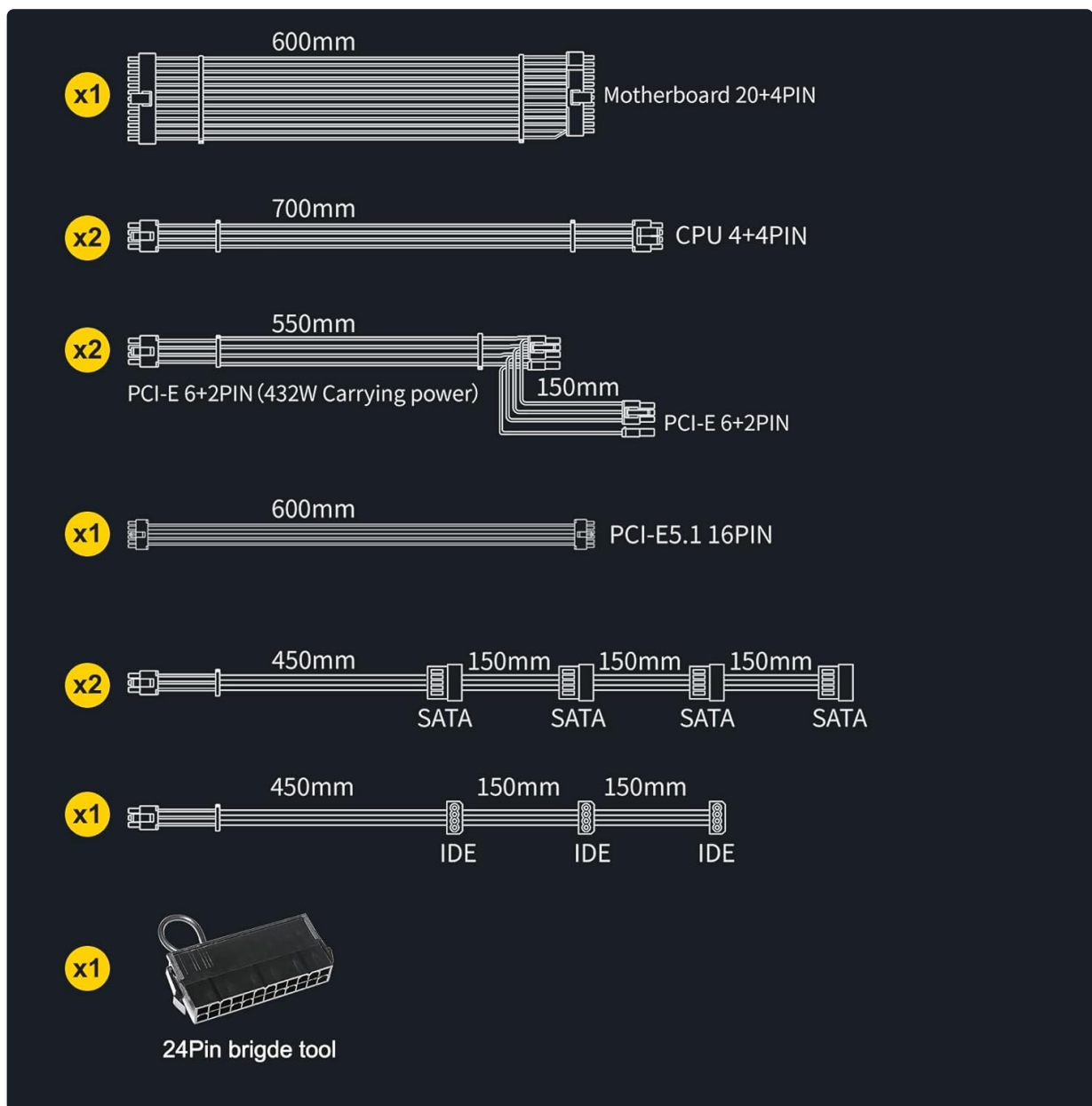


Image 3.1: Included Modular Cables and 24-Pin Bridge Tool

4. PRODUCT FEATURES

- **ATX 3.1 & PCIe 5.1 Ready:** This power supply is compliant with the latest ATX 3.1 and PCIe 5.1 standards, ensuring compatibility with next-generation hardware. It is designed to handle power excursions up to 200% of total power and 300% of GPU power, providing stable power delivery for high-performance graphics cards.



More stable and secure than traditional ATX 2.0 power supply



3X

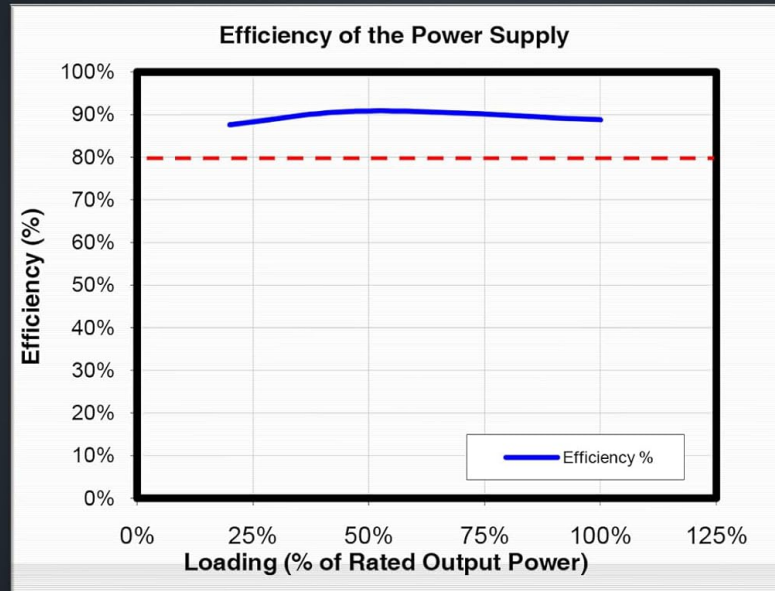
GPU POWER
EXCURSION

2X

TOTAL POWER
EXCURSION

Image 4.1: ATX 3.1 Compliance and Power Excursion Handling

- **80 Plus Gold Certified:** The 80 PLUS Gold certification guarantees high power efficiency, reducing energy waste and operating costs. This results in less heat generation and a quieter system.



GOLD EFFICIENCY

Image 4.2: 80 Plus Gold Efficiency Certification

- **Fully Modular Design:** The fully modular cable system allows you to connect only the cables your system requires, improving airflow within your PC case and simplifying cable management. The flat black cables enhance the aesthetic appeal of your build.
- **Native 12VHPWR Cable:** Equipped with a native 12VHPWR cable, this PSU can deliver up to 600W of power directly to PCIe 5.1 graphics cards, eliminating the need for adapters and ensuring stable power delivery.

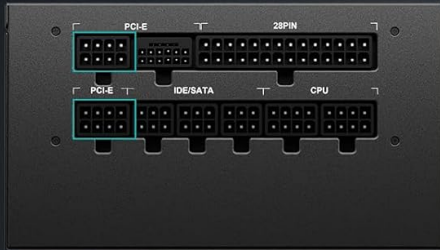


Image 4.3: Native 12VHPWR Cable for PCIe 5.1 Graphics Cards

- **Stable +12V Output:** Featuring a DC-DC structure, Full Bridge LLC resonance assist, and 12V synchronous rectification, the GM850 provides a highly stable and safe +12V output, crucial for sensitive components like the CPU and GPU.
- **Comprehensive Safety Protections:** The power supply incorporates multiple protection circuits to safeguard your components: OVP (Over Voltage Protection), OCP (Over Current Protection), OPP (Over Power Protection), SPD (Surge Protection Device), OTP (Over Temperature Protection), UVP (Under Voltage Protection), and SCP (Short Circuit Protection).
- **120mm FDB Fan:** A 120mm Fluid Dynamic Bearing (FDB) fan provides efficient cooling with minimal noise, contributing to a quieter computing experience.

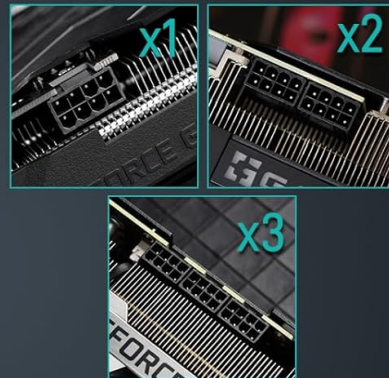
GRAPHICS CARD SUPPORT FOR ALL

PCIe x2

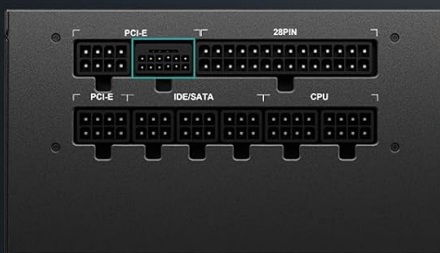


Support NVIDIA RTX 20/30 Series and AMD Graphics Cards

8(6+2) PIN



PCIe5.1 x1



Support NVIDIA RTX 5080, 5070Ti, 5070, 4080, 4070Ti Graphics Cards

16(12+4) PIN



Image 4.4: Graphics Card Compatibility and Connector Types

5. INSTALLATION GUIDE

Follow these steps to install your Segotep GM850 850W Power Supply:

1. **Preparation:** Ensure your computer is 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. Unscrew and remove the old PSU from the case.
3. **Mount the New PSU:** Carefully slide the Segotep GM850 into the power supply bay of your computer case. Secure it with the provided mounting screws.
4. **Connect Essential Cables:**
 - **20+4 Pin ATX Motherboard Cable:** Connect the main motherboard power cable to the corresponding port on your motherboard.
 - **4+4 Pin CPU Cable(s):** Connect the CPU power cable(s) to the CPU power port(s) on your motherboard.
5. **Connect Graphics Card Cables:**

- For PCIe 5.1 compatible graphics cards, use the native 12VHPWR (16-pin) cable.
 - For older graphics cards, use the 6+2 pin PCIe cables as required by your GPU.
6. **Connect Peripheral Cables:** Connect SATA power cables to your SSDs, HDDs, and optical drives. Connect IDE/Molex cables for any other peripherals that require them.
 7. **Cable Management:** Utilize the fully modular design and flat cables to route and manage cables neatly within your case for optimal airflow and aesthetics.
 8. **Final Check:** Double-check all connections to ensure they are secure. Close your computer case.
 9. **Power On:** Plug the AC power cord into the power supply and then into a grounded wall outlet. Flip the power switch on the PSU to the 'ON' position. Power on your computer.



Image 5.1: Segotep GM850 Power Supply Installed in a PC Case

6. OPERATION

Once installed, the Segotep GM850 850W Power Supply operates automatically, providing stable power to your system. The 120mm FDB fan adjusts its speed based on the power supply's temperature and load, ensuring efficient cooling while maintaining low noise levels. No user intervention is typically required during normal operation.

7. MAINTENANCE

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

- **Dust Removal:** Periodically clean the exterior of the power supply and its fan grille to prevent dust buildup, which can impede airflow and cooling. Use compressed air to gently clear dust from the fan and vents. Ensure the system is powered off and unplugged before cleaning.
- **Cable Inspection:** Occasionally check all modular cable connections to ensure they are seated firmly.
- **Environment:** Maintain a clean, cool, and dry environment for your computer to prevent excessive strain on the power supply.

8. TROUBLESHOOTING

If you encounter issues with your power supply, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Computer does not power on.	Power cord not connected, PSU switch off, faulty component, insufficient power.	Ensure power cord is secure. Check PSU switch is ON. Verify all modular cables are correctly connected. Test with minimal components.
System crashes or reboots randomly.	Overload, overheating, unstable power delivery.	Ensure total system wattage does not exceed 850W. Check for proper ventilation. Verify all cables are securely connected.
Fan is excessively loud.	Dust buildup, high load, fan malfunction.	Clean dust from the fan and vents. Ensure adequate case airflow. If noise persists, contact support.
Burning smell or smoke.	Serious component failure.	Immediately disconnect power from the wall outlet. Do not attempt to power on the system. Contact Segotep support.

If these steps do not resolve your issue, please contact Segotep customer support.

9. SPECIFICATIONS

Feature	Detail
Model Name	GM850
Output Wattage	850 Watts
Efficiency Certification	80 PLUS Gold
Form Factor	ATX 3.0 (Compatible with ATX 3.1)
Connector Type	ATX 3.1, PCI Express 5.1 (Native 12VHPWR)

Feature	Detail
Cooling Method	Air (120mm FDB Fan)
Product Dimensions (L x W x H)	5.91 x 5.51 x 3.35 inches
Item Weight	5.29 pounds
Compatible Devices	Gaming Console (PC)
Protections	OVP, OCP, OPP, SPD, OTP, UVP, SCP

10. WARRANTY AND SUPPORT

The Segotep GM850 850W Power Supply comes with a **5-year warranty** from the date of purchase, covering defects in materials and workmanship under normal use. This warranty does not cover damage caused by improper installation, accidents, abuse, misuse, natural disaster, or unauthorized modification. For technical support, warranty claims, or further assistance, please contact Segotep customer service through their official website or the retailer where the product was purchased. Please have your proof of purchase and product model information ready when contacting support.

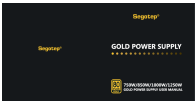


Segotep Inc.

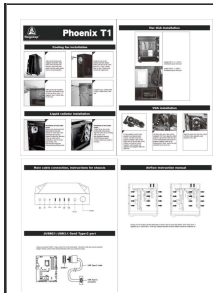
Website: www.segotep.com

Email: support@segotep.us

© 2023 Segotep Inc. All rights reserved.

Related Documents - GM850

	<p>Segotep Gold Power Supply User Manual</p> <p>User manual for Segotep Gold Power Supplies, covering installation, features, Q&A, and specifications for 750W, 850W, 1250W, 1600W, 2000W, and 750W SFX models.</p>
	<p>Segotep KL-Aeolus PC Case Installation Guide</p> <p>Comprehensive installation manual for the Segotep KL-Aeolus PC case, detailing steps for fan, liquid cooler, motherboard, PSU, and graphics card installation.</p>
	<p>Segotep Slath Mini PC Case Assembly and Usage Guide</p> <p>Essential tips and step-by-step instructions for assembling and using the Segotep Slath Mini PC case, covering prohibited uses and proper installation procedures.</p>



[Segotep Phoenix T1 PC Case Installation Guide](#)

Detailed installation instructions for the Segotep Phoenix T1 PC case, covering fan, radiator, storage, and cable management setup.