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EVGA 220-P2-0850-X1

EVGA SuperNOVA 850 P2 Platinum Power Supply User Manual

Model: 220-P2-0850-X1

INTRODUCTION

The EVGA SuperNOVA 850 P2 is an 80 PLUS Platinum certified power supply designed to deliver stable and efficient power to your computer system. This fully modular unit incorporates high-quality components, including 100% Japanese capacitors, to ensure long-term reliability and performance. The EVGA ECO Mode allows for silent operation during low to medium loads by stopping the fan. This manual provides essential information for the safe and correct installation, operation, and maintenance of your power supply.



Image: The EVGA SuperNOVA 850 P2 Platinum Power Supply, showcasing its sleek black design and fan grille.

FEATURES

- **80 PLUS Platinum Certified:** Achieves 92% (115VAC) / 94% (220VAC~240VAC) efficiency or higher under typical loads, reducing heat and operating costs.
- **Fully Modular Design:** Allows for detachable cables, reducing clutter and improving airflow within the PC case.
- **EVGA ECO Mode:** Enables the power supply fan to turn off during low to medium loads for completely silent operation.
- **100% Japanese Capacitors:** Ensures long-term reliability and stable power delivery.
- **140mm Double Ball Bearing Fan:** Provides excellent cooling performance and durability.
- **Comprehensive Protections:** Includes OVP (Over Voltage Protection), UVP (Under Voltage Protection), OCP (Over Current Protection), OPP (Over Power Protection), SCP (Short Circuit Protection), and OTP (Over Temperature Protection).

WHAT'S IN THE BOX

Upon opening the package, verify that all the following items are present:

- EVGA SuperNOVA 850 P2 Power Supply Unit
- Modular Cable Set (including ATX, EPS, PCIe, SATA, Peripheral cables)
- AC Power Cord
- Mounting Screws
- Power On Self Tester (POST)
- User Manual (this document)



Image: A complete set of modular cables for the EVGA SuperNOVA P2 power supply, including main ATX, CPU, PCIe, SATA, and peripheral connectors.

SETUP AND INSTALLATION

Follow these steps to properly install your EVGA SuperNOVA 850 P2 power supply into your computer system.

1. **Safety First:** Ensure your computer is completely powered off and unplugged from the wall outlet.
2. **Remove Old PSU (if applicable):** Disconnect all cables from your old power supply and remove it from the PC case.
3. **Mount the New PSU:** Carefully place the EVGA SuperNOVA 850 P2 into the power supply bay of your PC case. Secure it with the provided mounting screws. Ensure the fan is facing the correct direction for optimal airflow (typically facing down if your case has a bottom vent, or up if it's a top-mounted PSU).
4. **Connect Essential Cables:**
 - Connect the 24-pin ATX cable to your motherboard.
 - Connect the 8-pin (4+4) EPS/CPU cable(s) to your motherboard.
 - Connect the appropriate PCIe (6+2 pin) cables to your graphics card(s).
 - Connect SATA power cables to your storage drives (HDDs, SSDs) and optical drives.
 - Connect peripheral (Molex) cables to any other components requiring them (e.g., case fans, fan controllers).
5. **Cable Management:** Utilize the fully modular design to connect only the necessary cables. Route cables neatly behind the motherboard tray or in designated channels to improve airflow and aesthetics.
6. **Connect AC Power:** Plug the AC power cord into the power supply and then into a wall outlet or surge protector.
7. **Power On:** Flip the power switch on the back of the PSU to the 'ON' position. Power on your computer.



Image: The modular cable connection panel of the EVGA SuperNOVA 850 P2, showing clearly labeled ports for motherboard (MB), CPU, VGA, SATA, and Peripheral connections.



Image: The rear panel of the EVGA SuperNOVA 850 P2, featuring the AC power inlet and the main power switch.

OPERATING INSTRUCTIONS

The EVGA SuperNOVA 850 P2 is designed for straightforward operation. Key features include:

- **Power Switch:** Located on the rear of the unit, this switch controls the main power to the PSU. Ensure it is in the 'ON' position for the system to receive power.
- **EVGA ECO Mode:** This feature is controlled by a switch on the modular cable panel. When ECO Mode is 'ON', the power supply fan will remain off during low to medium system loads, providing silent operation. The fan will automatically activate when the load increases to maintain optimal temperatures. When ECO Mode is 'OFF', the fan will operate continuously.



Video: An official overview of the EVGA SuperNOVA P2 Power Supply series, highlighting its 80 PLUS Platinum certification and key features.

MAINTENANCE

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

- **Dust Removal:** Periodically clean dust from the power supply's fan grille and vents using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **Cable Inspection:** Regularly check all modular cables for secure connections and any signs of wear or damage. Replace any damaged cables immediately.
- **Environment:** Operate the power supply in a well-ventilated area, free from excessive heat, humidity, and dust.



Image: Top-down view of the EVGA SuperNOVA 850 P2, highlighting the fan grille which should be kept clear of dust for efficient cooling.

TROUBLESHOOTING

If you encounter issues with your power supply, refer to the following common troubleshooting steps:

- **No Power:**

- Ensure the AC power cord is securely plugged into both the PSU and the wall outlet.
- Verify the power switch on the back of the PSU is in the 'ON' position.
- Check all modular cable connections to the motherboard and components.
- Test the power supply using the included Power On Self Tester (POST) to confirm basic functionality.

- **System Instability/Random Shutdowns:**

- Ensure the power supply is adequately rated for your system's components.
- Check for overheating. Ensure proper case airflow and that the PSU fan is operating (if ECO mode is off or under load).
- Verify all power connections are secure.

- **Fan Noise:**

- If ECO Mode is 'ON', the fan will be off during low loads. This is normal.
- If the fan is excessively loud when ECO Mode is 'OFF' or under load, ensure there are no obstructions to the fan blades and that the PSU is clean of dust.

If issues persist after following these steps, please contact EVGA customer support.

SPECIFICATIONS

Feature	Detail
Model Number	220-P2-0850-X1
Wattage	850W
80 PLUS Certification	Platinum
Form Factor	ATX
Modularity	Fully Modular
Fan Size / Bearing	140mm Double Ball Bearing
Capacitors	100% Japanese
Input Voltage	100-240 VAC
Input Frequency	50/60 Hz
Dimensions (LxWxH)	6.5 x 5.91 x 3.3 inches (165 x 150 x 85 mm)
Weight	7.95 pounds (3.6 kg)



Image: The specification label on the EVGA SuperNOVA 850 P2, detailing electrical ratings and certifications.

WARRANTY AND SUPPORT

The EVGA SuperNOVA 850 P2 power supply is backed by an industry-leading **10-Year Warranty**, ensuring peace of mind and long-term reliability.

For technical support, warranty claims, or additional information, please visit the official EVGA website or contact their customer service department. Keep your proof of purchase for warranty validation.

EVGA Official Website: www.evga.com

