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› PowerSpec PSX 850GFM 850 Watt 80 Plus Gold Fully Modular ATX Power Supply User Manual

PowerSpec PSX 850GFM

PowerSpec PSX 850GFM 850 Watt 80 Plus Gold Fully Modular ATX Power Supply User Manual

Model: PSX 850GFM

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INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your PowerSpec PSX 850GFM 850 Watt 80 Plus Gold Fully Modular ATX Power Supply. Please read this manual thoroughly before installation and retain it for future reference.

SAFETY INFORMATION

WARNING: Improper installation or use can lead to equipment damage, electric shock, or serious injury. Always follow these safety guidelines:

- Ensure the power supply is disconnected from the AC power outlet before installation or handling.
- Do not open the power supply unit. High voltages are present inside, even after disconnection.
- Install the power supply in a well-ventilated area, away from heat sources and moisture.
- Use only the modular cables provided with this power supply. Using incompatible cables can cause damage.
- Ensure all connections are secure before powering on the system.
- This product is designed for use in personal computers. Do not use it for other applications.

The PowerSpec PSX 850GFM includes heavy-duty protection features such as Over Voltage Protection (OVP), Over Current Protection (OCP), Over Power Protection (OPP), Short Circuit Protection (SCP), and Over Temperature Protection (OTP) to safeguard your components.



POWERSPEC
PSX 850GFM

80 PLUS GOLD 80+ GOLD RATED

SINGLE +12V RAIL

ULTRA QUIET

FULLY MODULAR

FULL SUITE OF PROTECTIONS

- OVP** Over Voltage Protection
- OCP** Over Current Protection
- OPP** Over Power Protection
- SCP** Short Circuit Protection
- UVP** Under Voltage Protection
- Dual OTP** Over Temperature Protection on the Primary and Secondary PCB

Image: Overview of PowerSpec PSX 850GFM highlighting protection features like OVP, OCP, OPP, SCP, and OTP.

PRODUCT OVERVIEW

The PowerSpec PSX 850GFM is an 850 Watt 80 Plus Gold certified fully modular ATX power supply designed for gaming PCs and high-performance systems. It features an RGB lighting fan and active PFC for stable and efficient power delivery.

Key Features:

- **80 Plus Gold Certification:** Ensures over 90% energy efficiency at 50% load.
- **Fully Modular Design:** Allows for clean cable management and improved airflow.
- **RGB Lighting Fan:** 135mm fan with 15 lighting color patterns, controllable via MB software or manual switch.
- **Zero RPM Mode:** Fanless operation under low loads (below 20-30%) for silent performance.
- **Active PFC:** Provides stable and reliable power.
- **Comprehensive Protections:** OVP, OCP, OPP, SCP, OTP.



Image: The PowerSpec PSX 850GFM power supply unit shown with its retail packaging.



Image: The 80 Plus Gold certification logo, indicating high energy efficiency for the PowerSpec PSX 850GFM.

SETUP AND INSTALLATION

Follow these steps to install your PowerSpec PSX 850GFM power supply into your computer system.

1. Prepare Your System:

1. Turn off your computer and disconnect the power cord from the wall outlet.
2. Open your computer case.
3. If replacing an existing power supply, disconnect all cables from the old PSU and remove it from the case.

2. Install the Power Supply:

1. Carefully place the PowerSpec PSX 850GFM into the PSU mounting bay in your computer case.
2. Secure the power supply to the case using the provided screws.

3. Connect Modular Cables:

The fully modular design allows you to connect only the necessary cables, reducing clutter and improving airflow. Refer to the diagram below for cable types and lengths.

- * Full Mesh Wrap Cables
- * Fully Modular Socket
- * Easy Cable Management

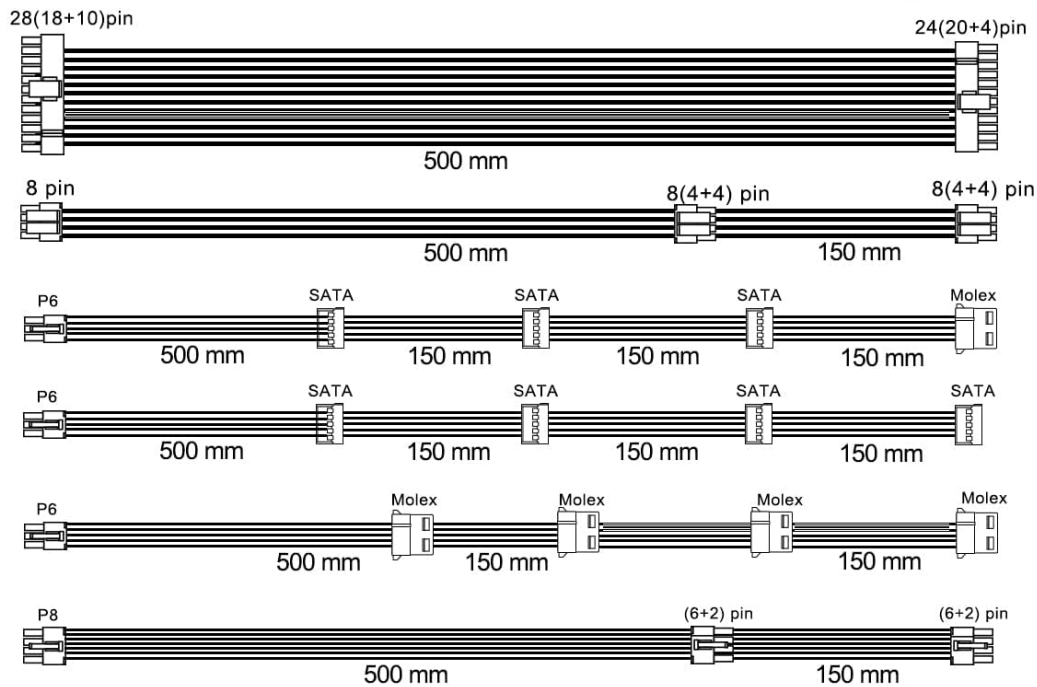


Image: Illustration of the various modular cables included with the PowerSpec PSX 850GFM, showing their types and lengths.

1. Connect the required modular cables to the power supply unit. Common connections include:
 - 24-pin ATX Motherboard Power
 - 4+4-pin CPU Power (EPS12V)
 - 6+2-pin PCIe Power for graphics cards
 - SATA Power for SSDs/HDDs
 - Molex Power for older peripherals
 - FDD Power (if needed)
 - RGB cable for fan lighting control (if connecting to motherboard RGB header)
2. Connect the other end of each cable to the corresponding component (motherboard, graphics card, storage drives, etc.).
3. Ensure all connections are firm and properly seated.



Image: A close-up view of the PowerSpec PSX 850GFM showing the modular cable connections.

4. Final Checks:

1. Double-check all cable connections.
2. Ensure no loose cables are obstructing fans or airflow.
3. Close your computer case.
4. Connect the AC power cord to the power supply and then to a wall outlet.
5. Flip the power switch on the back of the PSU to the "ON" position.

OPERATING INSTRUCTIONS

Powering On:

After successful installation, press the power button on your computer case to start the system. The power supply will provide stable power to all components.

RGB Fan Control:

The 135mm RGB fan offers 15 lighting color patterns. You can control the RGB lighting in two ways:

- **Motherboard Lighting Control Software:** If you connected the RGB cable to a compatible motherboard RGB header, you can manage lighting effects through your motherboard's software.
- **Manual Switch:** Use the dedicated RGB pattern button on the back of the power supply to cycle through lighting modes.

135mm RGB Lighting Fan

Sync all the gadgets' RGB LED lights



Whisper quiet 135mm fan brings more
airflow volume with less noise than convention

Image: The PowerSpec PSX 850GFM's 135mm RGB fan illuminated, showcasing its lighting capabilities.

Zero RPM Fan Mode:

The power supply features a Zero RPM fan mode. When the system load is below 20-30%, the fan will stop spinning for silent operation. As the load increases, the fan will automatically activate to maintain optimal cooling.

Zero RPM Mode

Fanless function come to effect while loading below 20% - 30%

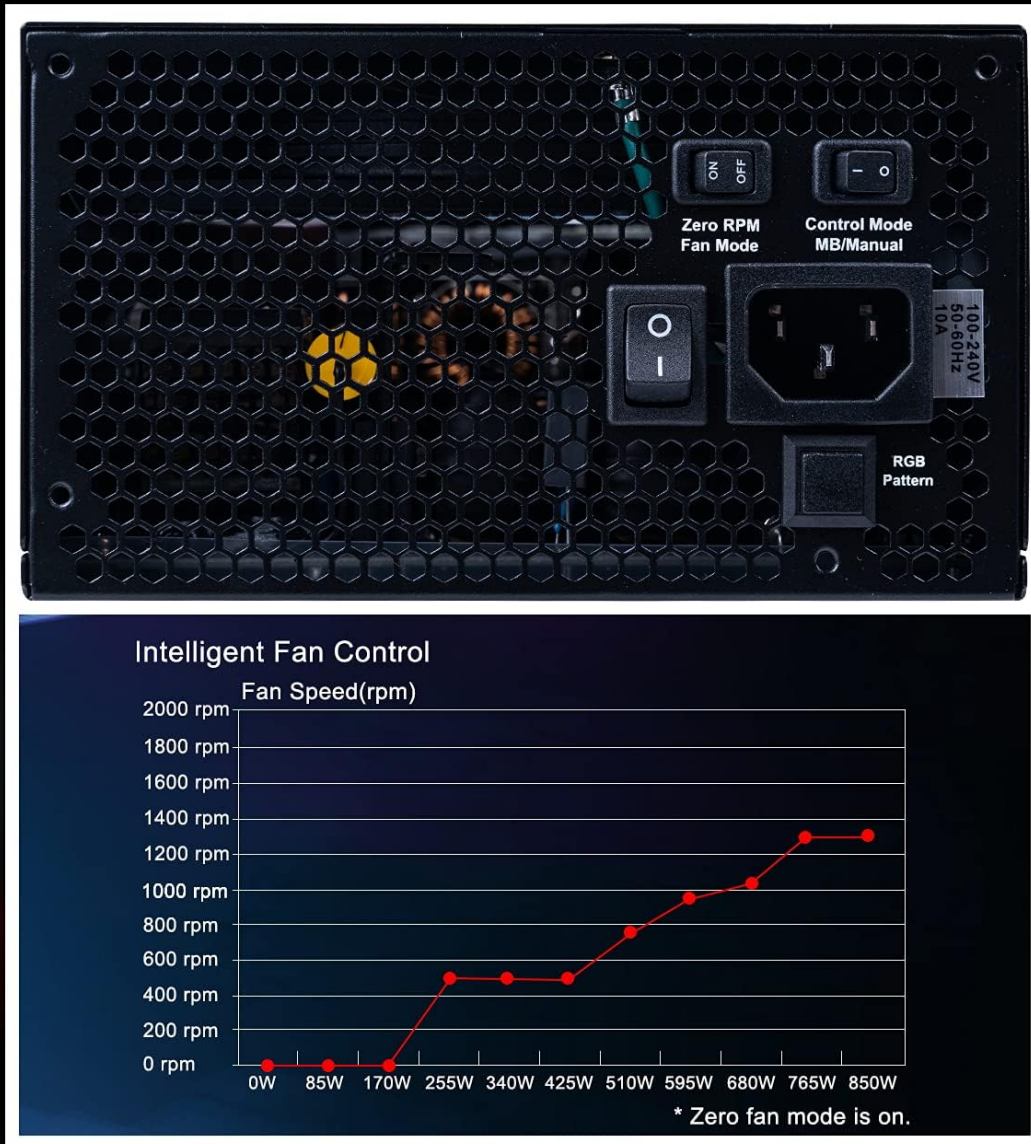


Image: Rear panel of the PowerSpec PSX 850GFM, indicating the Zero RPM fan mode switch and the RGB pattern control button.



Image: Graph illustrating the intelligent fan control, showing fan speed (RPM) relative to wattage load, with Zero RPM mode active at lower loads.

MAINTENANCE

The PowerSpec PSX 850GFM is designed for reliable, long-term operation with minimal maintenance. However, periodic checks can help ensure optimal performance and longevity.

- **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:** Occasionally check all modular cable connections to ensure they remain secure.
- **Ventilation:** Ensure that the computer case has adequate airflow and that the power supply's intake and exhaust vents are not obstructed.

Do not attempt to open the power supply unit for cleaning or repair, as this voids the warranty and poses a risk of electric shock.

TROUBLESHOOTING

If you encounter issues with your PowerSpec PSX 850GFM, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
System does not power on.	<ul style="list-style-type: none">◦ Power cord not connected.◦ PSU switch is off.◦ Loose cable connections.◦ Faulty component (motherboard, CPU, etc.).	<ul style="list-style-type: none">◦ Ensure power cord is securely plugged into PSU and wall outlet.◦ Flip the PSU switch to the "ON" position.◦ Check all modular cable connections to the PSU and components.◦ Test components individually if possible.
Fan is not spinning.	<ul style="list-style-type: none">◦ Zero RPM mode is active.◦ Fan malfunction.	<ul style="list-style-type: none">◦ This is normal under low loads (below 20-30%). The fan will spin up as load increases.◦ If fan never spins under load, contact support.
RGB lighting not working.	<ul style="list-style-type: none">◦ RGB cable not connected.◦ Incorrect software settings.	<ul style="list-style-type: none">◦ Ensure the RGB cable is connected to the motherboard or use the manual switch.◦ Check motherboard RGB software settings.
System crashes or restarts.	<ul style="list-style-type: none">◦ Overload or instability.◦ Overheating.	<ul style="list-style-type: none">◦ Ensure total system power draw does not exceed 850W.◦ Check for proper ventilation and dust buildup.◦ Verify all connections are secure.

If the problem persists after attempting these solutions, please contact PowerSpec customer support.

SPECIFICATIONS

General Specifications	
Model Name	PSX 850GFM
Wattage	850 Watts
80 PLUS Certification	Gold
Form Factor	ATX
Modularity	Fully Modular
Fan Size	135mm RGB Fan
Cooling Method	Air
PFC Type	Active PFC
Dimensions (L x W x H)	6.3 x 5.91 x 3.39 inches (160 x 150 x 86 mm)
Item Weight	3.53 pounds
Input Voltage	100-240V AC
Input Frequency	50/60Hz

Output Specifications:

DC Output	Max Output Current	Max Output Power
+3.3V	22A	120W
+5V	22A	
+12V	70.9A	850W
-12V	0.3A	3.6W
+5VSB	3A	15W
Total Power		850W

POWERSPEC **PRODUCT PARAMETERS**



Model	: PSX 850GFM
Type	: Desktop ATX PSU
Size	: 6.3*5.9*3.39inch
Fan Size	: 5.3inch / RGB Fan
Watt	: 850W
Modular	: Fully Modular
80Plus	: Gold certified

Connectors	
20+4Pin	x1
CPU 4+4Pin	x2
PCI-E 6+2Pin	x6
SATA	x12
HDD	x4
FDD	x1
RGB cable	x1

AC Input	AC INPUT : 100-240V~ 10A FREQUENCY:50-60Hz				
DC Output	+3.3V	+5V	+12V	-12V	+5VSB
Max Output Current	22A	22A	70.9A	0.3A	3A
Max Output Power	120W		850W	3.6W	15W
Total Power	850W				

Image: Detailed product parameters for the PowerSpec PSX 850GFM, showing dimensions, connector types and quantities, and electrical output specifications.

WARRANTY INFORMATION

The PowerSpec PSX 850GFM power supply is backed by a **10-Year Warranty**. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims.

The warranty does not cover damage resulting from:

- Improper installation or operation.
- Accident, abuse, misuse, or natural disaster.
- Unauthorized modification or repair.
- Damage during shipping.

For full warranty terms and conditions, please refer to the official PowerSpec website or contact customer support.

SUPPORT

For technical assistance, troubleshooting, or warranty inquiries, please contact PowerSpec customer support:

- **Website:** Visit the official PowerSpec website for FAQs, drivers, and support resources.
- **Email:** Refer to your product packaging or the PowerSpec website for contact email.
- **Phone:** Refer to your product packaging or the PowerSpec website for contact phone number.

When contacting support, please have your product model (PSX 850GFM) and proof of purchase ready.

