MSI MAGA850GLPCIE5WT

MSI MAG A850GL PCIE 5.1 White Gaming Power Supply User Manual

Model: MAG A850GL PCIE5 WHITE

Introduction Safety Information Package Contents Setup Operation Maintenance Troubleshooting Specifications Warranty & Support

1. Introduction

This manual provides essential information for the installation, operation, and maintenance of your MSI MAG A850GL PCIE 5.1 White Gaming Power Supply. This 850W, 80 PLUS Gold certified, full modular ATX power supply is designed to meet the demands of modern gaming systems, featuring ATX 3.1 and PCIe 5.1 readiness for high-performance components.



Figure 1.1: The MSI MAG A850GL PCIE 5.1 White Gaming Power Supply shown with its retail packaging. This image highlights the compact design and white aesthetic of the unit.

2. Safety Information

Please read and follow all safety instructions carefully before installing or operating the power supply unit (PSU). Failure to do so may result in personal injury or damage to the product and other components.

- **Electrical Hazard:** Do not open the PSU casing. High voltages are present inside, even when the unit is unplugged. There are no user-serviceable parts.
- **Ventilation:** Ensure adequate airflow around the PSU. Do not block ventilation openings.
- **Moisture:** Keep the PSU away from water, humidity, and other liquids.
- **Temperature:** Operate the PSU within the specified temperature range. Avoid extreme heat or cold.
- **Grounding:** Always connect the PSU to a grounded power outlet using the provided power cord.
- **Cable Management:** Route cables carefully to prevent pinching or damage.

3. Package Contents

Verify that all items listed below are included in your package. If any items are missing or damaged, please contact your retailer or MSI support.

- MSI MAG A850GL PCIE 5.1 White Gaming Power Supply Unit
- Modular Cable Set (including 12VHPWR cable)
- AC Power Cord
- Mounting Screws

- Cable Ties (for management)
- User Manual (this document)



Figure 3.1: Contents of the MSI MAG A850GL PCIE 5.1 White Gaming Power Supply package. This includes the PSU, a bag for modular cables, the AC power cord, mounting screws, and various modular cables.

4. Setup and Installation

Follow these steps to properly install your power supply unit into your computer system.

4.1 Pre-Installation Checks

- Ensure your computer case has adequate space for an ATX form factor PSU.
- Confirm that your motherboard and other components are compatible with an 850W power supply.
- Unplug the computer from the wall outlet and discharge any residual power by pressing the power button for a few seconds.

4.2 Mounting the PSU

1. Locate the PSU mounting bay in your computer case, typically at the bottom or top rear.
2. Slide the PSU into the bay, ensuring the fan faces the correct direction (usually downwards for bottom-mounted PSUs, or according to case design for optimal airflow).
3. Secure the PSU to the case using the provided mounting screws.

4.3 Connecting Modular Cables

The MAG A850GL is a full modular PSU, allowing you to connect only the cables you need, improving airflow and cable management.



SPECIFICATIONS					
AC Input	100V-240V				
DC Output	+5V	+3.3V	+12V	-12V	+5Vsb
	20.0A	20.0A	70.5A	0.3A	2.5A
	110W		846W	3.6W	12.5W
Total Power	850W				

Figure 4.1: The modular cable connection panel on the MSI MAG A850GL PCIE 5.1 PSU. This view shows the various ports for ATX, CPU, PCIe, SATA, and Molex cables, along with a connected 12VHPWR cable to a graphics card.

1. **24-pin ATX Motherboard Cable:** Connect the large 24-pin cable to the corresponding port on your motherboard and the PSU.
2. **CPU Power Cables (EPS):** Connect the 4+4 pin or 8-pin CPU power cables to your motherboard's CPU power connectors and the PSU. Modern motherboards may require two such connectors.
3. **PCIe Power Cables:** For graphics cards, use the appropriate PCIe 6+2 pin cables. For NVIDIA RTX 40-series GPUs and newer, utilize the dedicated 12VHPWR (PCIe 5.1) cable for direct connection. Ensure the 12VHPWR cable is fully seated at both the PSU and GPU ends to prevent issues.
4. **SATA Power Cables:** Connect these to SSDs, HDDs, and other SATA-powered devices.
5. **Molex Power Cables:** Use for older peripherals or case fans that require Molex connectors.

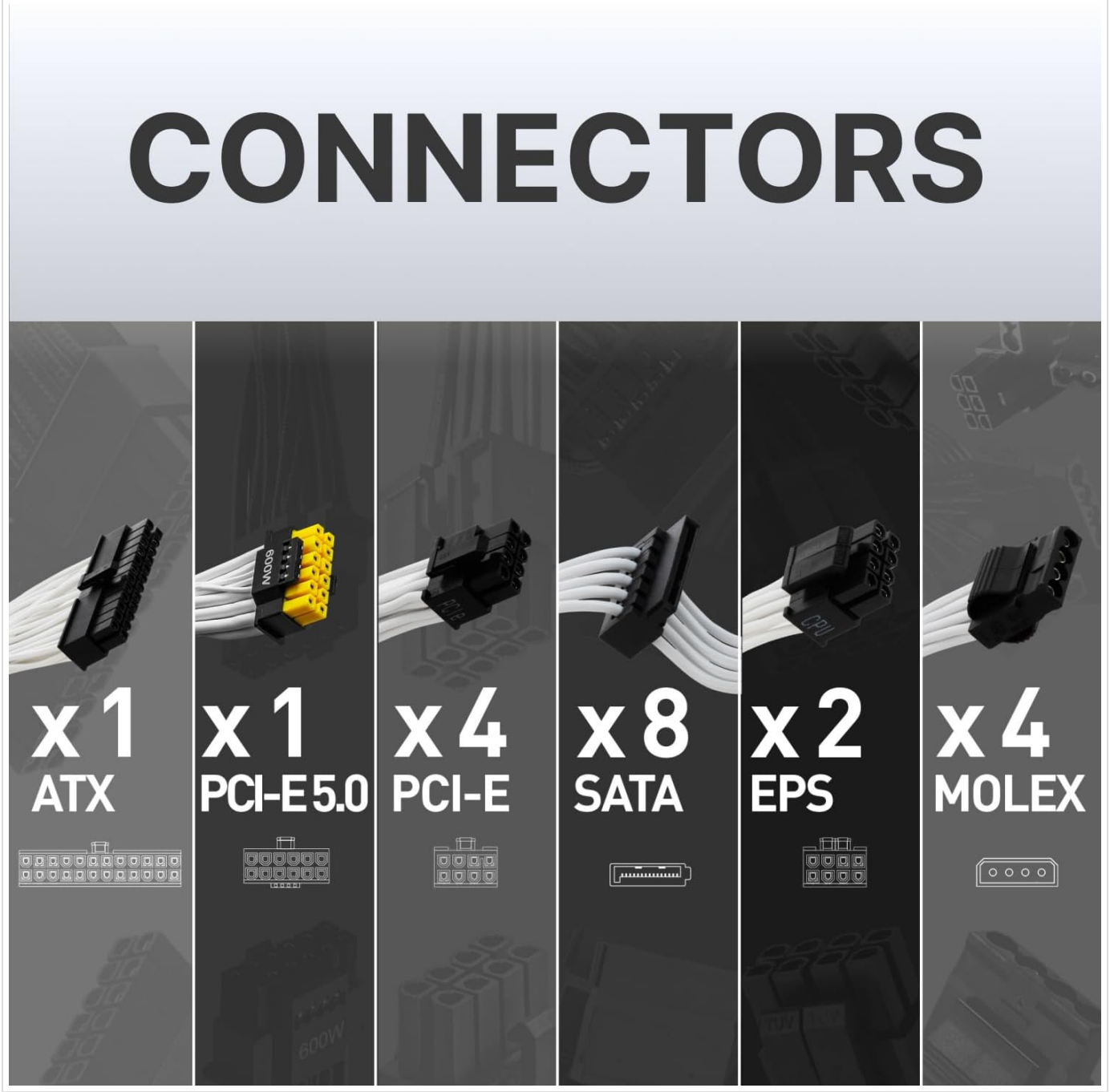


Figure 4.2: A visual guide to the types and quantities of connectors provided with the MSI MAG A850GL PCIE 5.1 PSU. This includes 1x ATX, 1x PCI-E 5.0 (12VHPWR), 4x PCI-E (6+2 pin), 8x SATA, 2x EPS, and 4x Molex connectors.

4.4 ATX 3.1 & PCIe 5.1 Readiness

The MAG A850GL is designed to fully support the ATX 3.1 standard and PCIe 5.1, ensuring compatibility and stable power delivery for the latest high-performance graphics cards and future hardware. This includes enhanced power excursion capabilities.

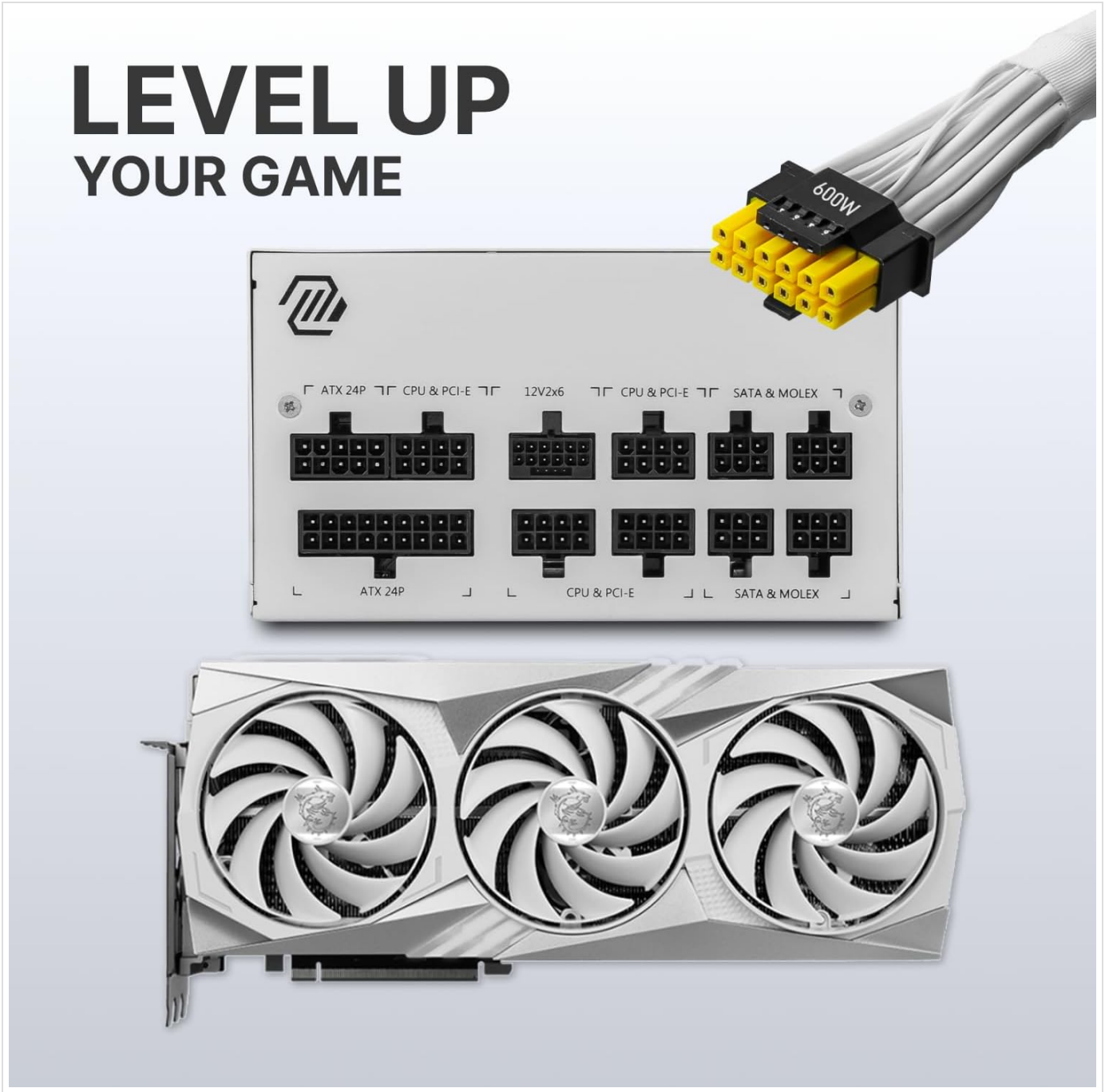


Figure 4.3: The MSI MAG A850GL PCIE 5.1 PSU prominently displaying its ATX 3.1 and PCIe 5.1 readiness. This indicates its capability to handle transient power spikes from modern GPUs.

5. Operation

5.1 Powering On Your System

1. After all cables are securely connected, ensure the 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 grounded wall outlet.
3. Flip the power switch on the PSU to the 'ON' (I) position.
4. Press the power button on your computer case to start the system.

5.2 80 PLUS Gold Efficiency

The MAG A850GL is 80 PLUS Gold certified, meaning it achieves a high level of power efficiency. This reduces wasted energy as heat, leading to lower operating temperatures, less noise, and reduced electricity consumption compared to less efficient PSUs.



Figure 5.1: The fan grill of the MSI MAG A850GL PCIE 5.1 PSU, featuring the 80 PLUS Gold and Cybenetics Gold certification badges. These certifications confirm the unit's high energy efficiency.

5.3 Fluid Dynamic Bearing Fan

The PSU incorporates a Fluid Dynamic Bearing (FDB) fan, which offers superior durability and quieter operation compared to traditional fan bearings. The fan's speed is intelligently controlled to provide optimal cooling while minimizing noise output, especially under lighter loads.

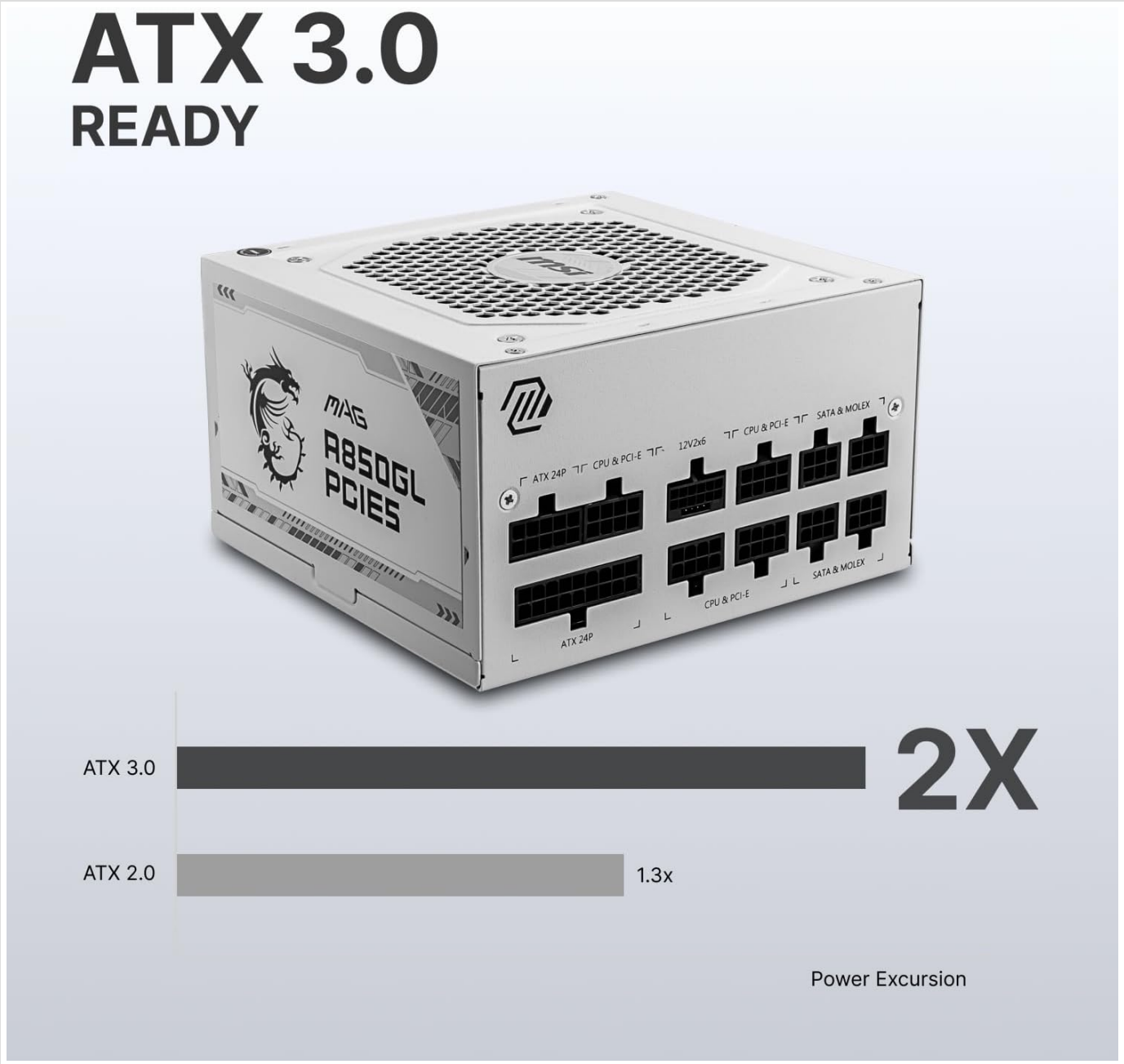


Figure 5.2: An internal view of the MSI MAG A850GL PCIE 5.1 PSU highlighting the Fluid Dynamic Bearing fan. This fan design contributes to the PSU's quiet operation and extended lifespan.

6. Maintenance

Proper maintenance ensures the longevity and optimal performance of your PSU.

6.1 Cleaning

- **Regular Dust Removal:** Periodically clean dust from the PSU's exterior and fan grill using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **Internal Cleaning:** Do not attempt to open the PSU for internal cleaning. This voids the warranty and poses a severe electrical hazard.

6.2 Environmental Considerations

- Operate the PSU in a well-ventilated environment to prevent overheating.
- Avoid exposing the PSU to direct sunlight or high humidity.

7. Troubleshooting

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

7.1 No Power / System Not Starting

- **Check Power Cord:** Ensure the AC power cord is securely connected to both the PSU and the wall outlet.
- **PSU Switch:** Verify that the power switch on the back of the PSU is in the 'ON' (I) position.
- **Wall Outlet:** Test the wall outlet with another device to ensure it is functioning correctly.
- **Internal Connections:** Double-check all modular cable connections (24-pin ATX, CPU, PCIe) at both the PSU and component ends. Ensure they are fully seated.
- **Motherboard Stand-offs:** Ensure the motherboard is correctly installed with stand-offs to prevent short circuits.

7.2 System Instability / Random Shutdowns

- **Overload:** Ensure your system's total power consumption does not exceed the PSU's 850W capacity. Use a power supply calculator if unsure.
- **Overheating:** Check for proper case ventilation and ensure the PSU fan is spinning. Clean any dust accumulation.
- **Cable Integrity:** Inspect all power cables for any signs of damage or fraying.
- **Component Issues:** Rule out other components (RAM, GPU, CPU) as potential causes by testing them individually if possible.

7.3 Excessive Fan Noise

- **Dust Buildup:** Clean the PSU fan and grill to remove any dust that might be impeding its operation.
- **Obstruction:** Ensure no cables or foreign objects are obstructing the fan blades.
- **Environmental Temperature:** High ambient temperatures can cause the fan to spin faster. Ensure adequate case cooling.

If troubleshooting steps do not resolve the issue, please contact MSI customer support.

8. Specifications

Detailed technical specifications for the MSI MAG A850GL PCIE 5.1 White Gaming Power Supply.



Figure 8.1: The MSI MAG A850GL PCIE 5.1 PSU alongside a table detailing its electrical specifications, including AC input and DC output for various voltage rails.

MSI MAG A850GL PCIE 5.1 White Gaming Power Supply Specifications

Feature	Detail
Brand	MSI
Series	MAG A850GL
Model Number	MAGA850GLPCIE5WT
Form Factor	ATX
Wattage	850W
Efficiency Certification	80 PLUS Gold
Power Supply Design	Full Modular
ATX Standard	ATX 3.1 Ready

Feature	Detail
PCIe Standard	PCIe 5.1 Ready (with 12VHPWR connector)
Cooling Method	Air (Fluid Dynamic Bearing Fan)
Color	White
Item Weight	6.41 pounds
Product Dimensions (LxWxH)	11.5 x 9.25 x 5 inches
Compatible Devices	Desktop Computer
Date First Available	January 23, 2024

9. Warranty and Support

MSI stands behind the quality of its products. The MSI MAG A850GL PCIE 5.1 White Gaming Power Supply comes with a **10-year limited warranty**, ensuring long-term reliable operation.

9.1 Warranty Information

The warranty covers defects in materials and workmanship under normal use. For specific terms and conditions, including limitations and exclusions, please refer to the official MSI warranty policy available on their website.

9.2 Technical Support

If you require technical assistance, have questions about your product, or need to initiate a warranty claim, please visit the official MSI support website:

MSI Official Support Website

Please have your product model number (MAGA850GLPCIE5WT) and serial number ready when contacting support.

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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.

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