

Manuals+

[Q & A](#) | [Deep Search](#) | [Upload](#)

manuals.plus /

> [be quiet!](#) /

> [be quiet! Pure Power 12 850W PSU User Manual](#)

be quiet! BP004US

be quiet! Pure Power 12 850W PSU User Manual

Model: BP004US

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your be quiet! Pure Power 12 850W Power Supply Unit (PSU). Designed for quiet systems and gaming PCs, this PSU offers high efficiency, advanced stability, and support for next-generation components. Please read this manual thoroughly before installation and use.



Image 1.1: The be quiet! Pure Power 12 850W PSU, showcasing its sleek black design and fan grille.

2. SAFETY INFORMATION

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

- **Electrical Hazard:** Do not open the PSU casing. High voltages are present inside, even when the unit is unplugged. Servicing should only be performed by qualified personnel.
- **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.
- **Power Source:** Connect the PSU only to a grounded power outlet with the correct voltage.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- be quiet! Pure Power 12 850W PSU Unit
- AC Power Cord
- Mounting Screws
- Cable Ties (for cable management)
- User Manual (this document)

4. SETUP AND INSTALLATION

Follow these steps for proper installation of your PSU into a computer system:

1. **Prepare Your System:** Ensure your computer is powered off and unplugged from the wall outlet. Open your PC case.
2. **Mount the PSU:** Carefully slide the PSU into the designated PSU bay in your PC case. Secure it with the provided mounting screws.
3. **Connect Main Power Cables:**
 - Connect the 24-pin ATX motherboard power cable to your motherboard.
 - Connect the 8-pin (4+4) CPU power cable(s) to the CPU power connector(s) on your motherboard.
4. **Connect Graphics Card Power:** The Pure Power 12 850W includes a native 12V-2x6 connector for PCIe 5.1 graphics cards and three PCIe 6+2-pin connectors for current-gen GPUs. Connect the appropriate cables to your graphics card(s).



Image 4.1: Close-up of the 12V-2x6 connector, supporting ATX 3.1 and PCIe 5.1 standards.

5. **Connect Peripherals:** Connect SATA power cables to your storage drives (HDDs, SSDs) and Molex connectors to any other required peripherals.
6. **Cable Management:** Route cables neatly to improve airflow and aesthetics within your case. Use the included cable ties.
7. **Final Check:** Double-check all connections to ensure they are secure. Close your PC case.
8. **Power On:** Connect the AC power cord to the PSU and then to a wall outlet. Flip the power switch on the PSU to the 'ON' position.



Image 4.2: The Pure Power 12 PSU installed within a typical PC chassis, demonstrating cable routing.

5. OPERATING THE PSU

The be quiet! Pure Power 12 850W PSU is designed for reliable and efficient operation. Once installed and connected, it will provide stable power to your system components.

- **Efficiency:** This PSU is 80 PLUS Gold certified, achieving up to 92.7% efficiency. This reduces power consumption, heat generation, and operating costs.

80 PLUS® Gold efficiency
(up to 92.9%)



Image 5.1: Visual representation of the 80 PLUS Gold efficiency rating.

- **Silent Operation:** The integrated 120mm be quiet! fan is temperature-controlled, optimizing the balance between cooling performance and quietness. Airflow-optimized fan blades minimize turbulence for exceptionally quiet functionality.

**Silence-optimized
120mm be quiet! fan**

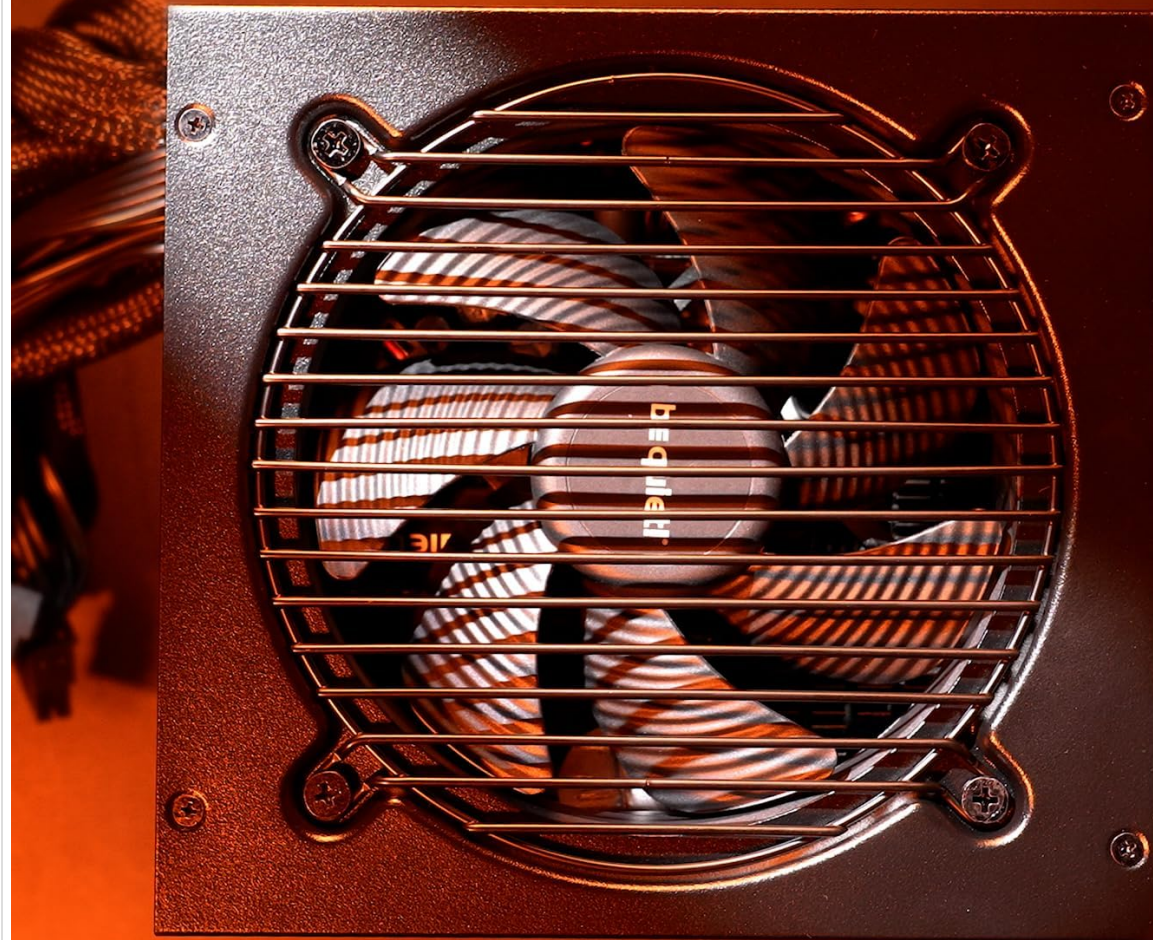


Image 5.2: Close-up of the silence-optimized 120mm fan within the PSU.

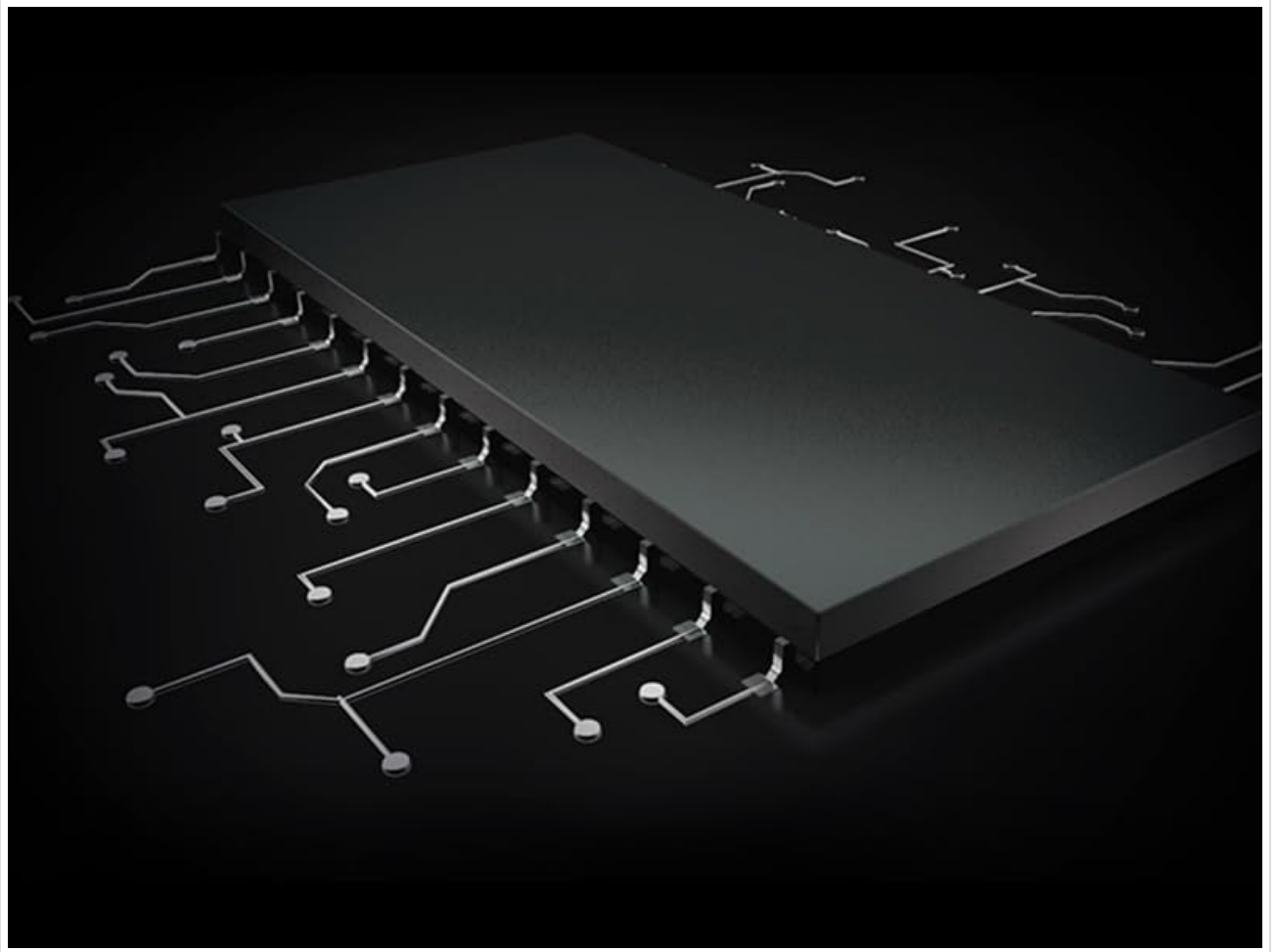


Image 5.3: A bar chart illustrating the low noise levels of the power supply across different load percentages.

- **Power Stability:** Featuring LLC topology and a massive 12V rail, the Pure Power 12 850W provides excellent voltage regulation and can handle power excursions up to double its rated power, ensuring stable operation for demanding components.

**Advanced stability and
voltage regulation**

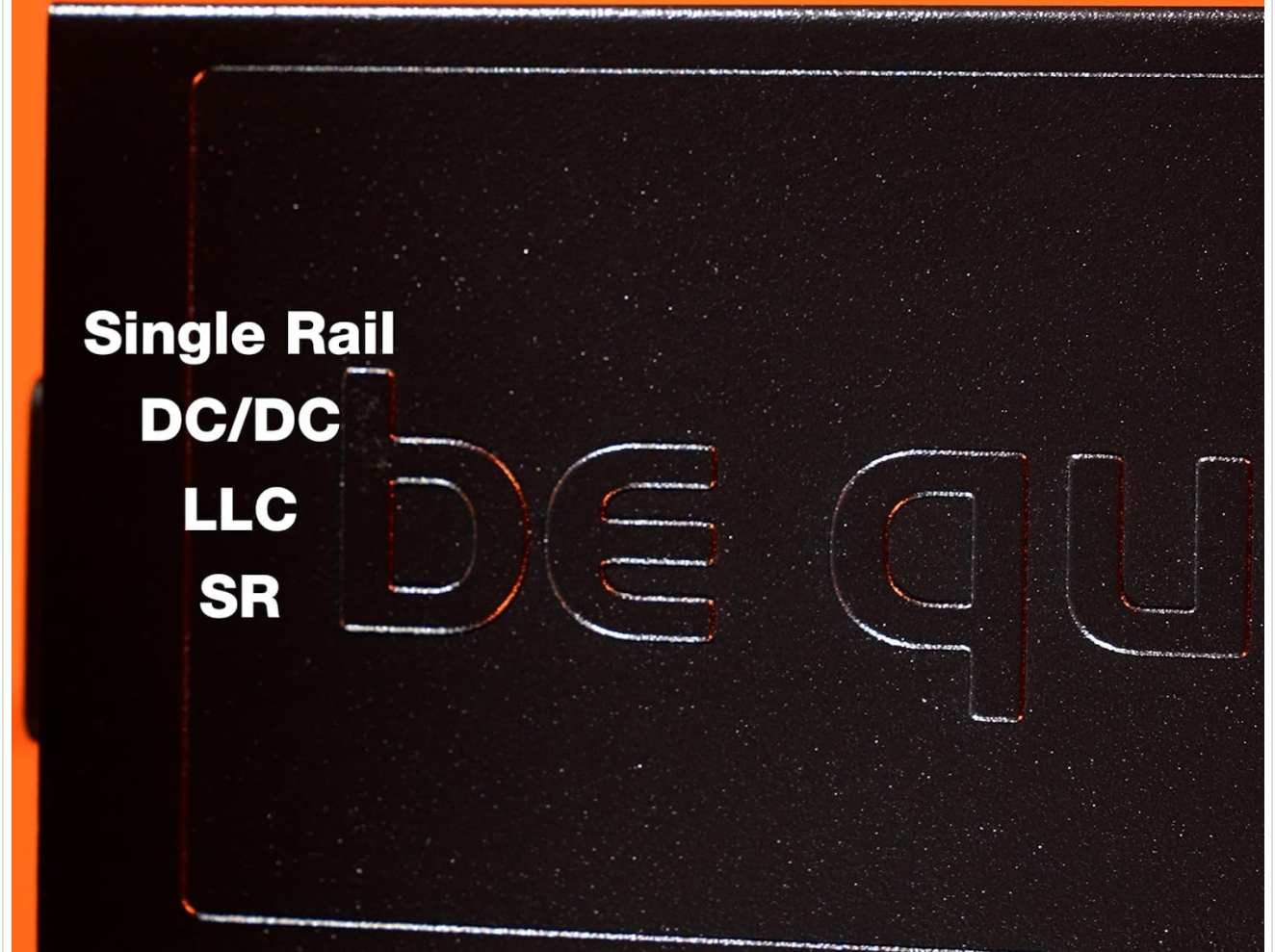


Image 5.4: Detail showing the side of the PSU, highlighting its advanced stability features.



Image 5.5: An abstract representation of the internal circuitry, emphasizing the advanced technology for stable power delivery.

6. MAINTENANCE

To ensure the longevity and optimal performance of your PSU, follow these simple maintenance guidelines:

- **Dust Cleaning:** Periodically clean dust from the PSU's fan grille and ventilation openings using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **Avoid Liquids:** Never spray liquids directly onto the PSU or use wet cloths for cleaning.
- **Environmental Conditions:** Maintain a clean, dry, and well-ventilated environment for your computer system.

7. TROUBLESHOOTING

If you encounter issues with your be quiet! Pure Power 12 850W PSU, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
PC does not power on.	Loose power connections, PSU switch off, faulty power outlet.	Check all power cable connections (24-pin, CPU, GPU, peripherals). Ensure the PSU's main power switch is ON. Test the power outlet with another device.
System instability or crashes.	Insufficient power, faulty component, overheating.	Verify that your system's total power consumption does not exceed the PSU's 850W capacity. Ensure proper ventilation. If issues persist, consult a professional.

Problem	Possible Cause	Solution
Unusual noise from PSU.	Dust accumulation in fan, loose screws.	Clean the fan and vents as described in the Maintenance section. Ensure the PSU is securely mounted. If the noise is persistent or unusual, contact support.

If troubleshooting steps do not resolve the issue, please contact be quiet! customer support for further assistance.

8. SPECIFICATIONS

Detailed technical specifications for the be quiet! Pure Power 12 850W PSU:



Image 8.1: The product label displaying electrical input/output and wattage ratings.

Feature	Detail
---------	--------

Feature	Detail
Model Name	BP004US
Output Wattage	850 Watts
Form Factor	ATX
Efficiency Certification	80 PLUS Gold (up to 92.7%)
Dimensions (L x W x H)	5.12 x 7.87 x 12.6 inches
Item Weight	7.28 pounds
Fan Size	120mm (temperature-controlled)
PCIe Connectors	1x 12V-2x6 (PCIe 5.1), 3x 6+2-pin
ATX Standard	ATX 3.1
Power Supply Design	Non-Modular

9. WARRANTY AND SUPPORT

Your be quiet! Pure Power 12 850W PSU comes with a **10-Year Manufacturer's Warranty**, ensuring long-term reliability and peace of mind.

For warranty claims, technical support, or any inquiries not covered in this manual, please visit the official be quiet! website or contact their customer service department. Keep your proof of purchase for warranty validation.

Online Support: www.bequiet.com/en/support