

FSP FSP450-60GHS(85)-R

FSP FSP450-60GHS(85)-R 450W Micro ATX Power Supply User Manual

Model: FSP450-60GHS(85)-R | Brand: FSP

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your FSP FSP450-60GHS(85)-R Micro ATX 450-Watt Power Supply Unit. This 80 Plus Bronze certified power supply is designed for compact small form factor PC systems, offering high power output and compatibility with Intel and AMD CPU systems.

Key features include a true 450-watt power output, an 80mm cooling fan with thermal sensing technology, and an SFX to PS2 bracket for integration into standard ATX cases.

2. SAFETY INFORMATION

Please read and understand all safety instructions before installing or operating the power supply. Failure to do so may result in personal injury or damage to equipment.

- Ensure the power supply is disconnected from the main power outlet before installation or maintenance.
- Do not open the power supply unit. High voltages are present inside, even when disconnected.
- Install the power supply in a well-ventilated area to prevent overheating.
- Use only the cables provided with the power supply.
- Avoid exposing the unit to moisture or extreme temperatures.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- FSP FSP450-60GHS(85)-R 450W Micro ATX Power Supply Unit
- SFX to PS2 Bracket
- AC Power Cord
- Mounting Screws

- User's Guide (this document)



Image 3.1: Contents of the FSP FSP450-60GHS(85)-R package.

4. SETUP AND INSTALLATION

Follow these steps to install your FSP power supply:

1. **Prepare Your System:** Ensure your computer is completely powered off and unplugged from the wall outlet. Open your computer case.
2. **Remove Old Power Supply (if applicable):** Disconnect all cables from your old power supply to the motherboard, graphics card, and other components. Unscrew and remove the old power supply.
3. **Install SFX to PS2 Bracket (if needed):** If installing into a standard ATX case, attach the provided SFX to PS2 bracket to the FSP450-60GHS(85)-R power supply using the mounting screws. This bracket allows the smaller SFX form factor PSU to fit into a larger ATX PSU bay.
4. **Mount the New Power Supply:** Carefully place the FSP450-60GHS(85)-R into the power supply bay of your computer case. Secure it with the provided mounting screws.
5. **Connect Cables:**
 - **Main 24-Pin Connector:** Connect the main 24-pin ATX connector to your motherboard.
 - **P4 | EPS 4+4 Pin Connector:** Connect the 4+4 pin CPU power connector to your motherboard's CPU power socket.
 - **PCI-E 8 Pin (6+2) and PCI-E 6 Pin Connectors:** If your graphics card requires additional power, connect the appropriate PCI-E connectors.
 - **SATA 15 Pin Connectors:** Connect to SSDs, HDDs, and optical drives.
 - **Molex 4 Pin Connectors:** Connect to older peripherals or case fans.
 - **FDD 4 Pin Connector:** For floppy disk drives or other legacy devices, if applicable.
6. **Cable Management:** Route cables neatly to ensure proper airflow within the case.
7. **Close Case and Connect Power:** Close your computer case, plug the AC power cord into the power supply, and then into a wall outlet.

FSP450-60GHS(85)-R OUTPUT CONNECTORS



Image 4.1: FSP450-60GHS(85)-R Output Connectors.

5. OPERATING INSTRUCTIONS

Once installed, the FSP450-60GHS(85)-R power supply operates automatically. It features:

- **80 Plus Bronze Certification:** This certification ensures high power conversion efficiency, reducing wasted energy and heat generation.
- **80mm Cooling Fan with Thermal Sensing:** The integrated 80mm fan adjusts its speed based on the internal temperature of the power supply, providing efficient cooling while minimizing noise.
- **Energy Saver 1-Watt Standby Mode:** The unit is designed to consume minimal power when the system is in standby mode.

To power on your system, press the power button on your computer case. Ensure the power switch on the back of the PSU is in the 'I' (On) position.



Image 5.1: FSP450-60GHS(85)-R Power Supply Unit.

6. MAINTENANCE

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

- **Dust Removal:** Periodically clean the power supply's fan and vents to prevent dust buildup, which can impede airflow and lead to overheating. Use compressed air for this purpose, ensuring the system is powered off and unplugged.
- **Airflow:** Ensure that the computer case has adequate airflow and that the power supply's intake and exhaust vents are not obstructed.
- **Cable Management:** Maintain tidy cable routing to avoid blocking airflow within the case.

7. TROUBLESHOOTING

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

- **No Power:**
 - Check if the AC power cord is securely connected to both the power supply and the wall outlet.
 - Ensure the power switch on the back of the PSU is in the 'I' (On) position.
 - Verify that the main 24-pin and CPU power connectors are correctly seated on the motherboard.

- Test the wall outlet with another device to confirm it has power.

- **System Instability/Random Shutdowns:**

- This could indicate insufficient power or a faulty component. Ensure all power connectors are properly seated.
- Check for overheating by monitoring system temperatures. Ensure proper ventilation and dust-free components.

- **Loud Fan Noise:**

- While the fan speed adjusts thermally, excessive noise might indicate dust buildup or a fan issue. Clean the fan and vents.
- Ensure the power supply is not under excessive load, causing the fan to spin at maximum speed constantly.

If problems persist, contact FSP customer support or a qualified technician.

8. SPECIFICATIONS



Image 8.1: Dimensions of the FSP450-60GHS(85)-R Power Supply.

Feature	Detail
Model Name	FSP450-60GHS(85)-R
Brand	FSP
Form Factor	Micro ATX (SFX 12V)
Output Wattage	450 Watts

Feature	Detail
Efficiency Certification	80 Plus Bronze
Cooling Method	Air (80mm fan with thermal control)
Dimensions (L x W x H)	125.0 x 100.0 x 63.5 mm (4.92 x 3.94 x 2.50 inches)
Item Weight	2.31 Pounds
Compatible Devices	Personal Computer (Intel/AMD CPU Systems)
Connector Type	ATX
Special Features	SFX to PS2 Bracket included, Energy Saver 1-Watt Standby Mode, RoHS, Lead-Free, Green Product (G.P)

9. WARRANTY AND SUPPORT

The FSP FSP450-60GHS(85)-R Power Supply Unit is covered by the FSP Quality Assurance Program, which includes a manufacturer's direct service guarantee for a period of **3 years** from the date of purchase.

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

FSP Official Website: www.fspgroupusa.com