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## Antec NE650G M

# Antec NeoECO NE650G M Power Supply User Manual

Model: NE650G M | Brand: Antec

## 1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Antec NeoECO NE650G M 80+ Gold Certified Fully Modular Power Supply Unit (PSU). Please read this manual thoroughly before installation and keep it for future reference.

The Antec NeoECO Gold Modular series is designed to provide stable and efficient power to your PC system. Featuring an 80 PLUS Gold certification and a 100% full modular design, it ensures convenient installation and reduced electricity consumption. The integrated 120mm silent fan with Zero RPM mode optimizes cooling while maintaining quiet operation.

## 2. SAFETY INFORMATION

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

- Ensure the power supply is disconnected from the AC outlet before installation or maintenance.
- Do not open the PSU casing. High voltages are present inside, even when disconnected.
- Install the PSU in a well-ventilated area, away from heat sources and moisture.
- Use only the modular cables provided with this power supply. Using incompatible cables may damage the PSU or connected components.
- This product is designed for use in personal computer systems. Do not use it for any other purpose.
- Handle with care to avoid dropping or impacting the unit.

## 3. PACKAGE CONTENTS

Verify that all items are present in your package:

- Antec NeoECO NE650G M Power Supply Unit
- Modular Cable Set (including ATX 24-pin, CPU 4+4-pin, PCIe 6+2-pin, SATA, and Molex cables)
- AC Power Cord
- Mounting Screws
- User Manual (this document)



Figure 3.1: Antec NeoECO NE650G M Power Supply with its retail packaging.

## 4. SETUP AND INSTALLATION

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Follow these steps to install your Antec NeoECO NE650G M PSU into your computer system:

- 1. Prepare Your System:** Ensure your computer is completely powered off and unplugged from the wall outlet. Open your computer case.
- 2. Remove Old PSU (if applicable):** Disconnect all cables from your old power supply. Unscrew and remove the old PSU from the case.
- 3. Mount the New PSU:** Carefully slide the Antec NeoECO NE650G M into the PSU mounting bay of your computer case. Ensure the fan faces the correct direction (usually downwards if your case has a bottom vent, or upwards if it's a top-mounted PSU). Secure the PSU with the provided mounting screws.
- 4. Connect Modular Cables:** Identify the necessary cables for your components (motherboard, CPU, graphics card, storage drives). Connect the appropriate modular cables to the corresponding ports on the PSU. The ports are clearly labeled on the PSU.



Figure 4.1: Side view of the Antec NeoECO NE650G M PSU, highlighting the modular cable connection ports.

5. **Connect to Components:** Route the connected modular cables neatly through your case and connect them to your motherboard (24-pin ATX, 4+4-pin CPU), graphics card(s) (6+2-pin PCIe), and storage devices (SATA, Molex). Ensure all connections are firm and secure.



Figure 4.2: The Antec NeoECO NE650G M PSU with various modular cables attached, ready for system integration.

6. **Close Case and Connect Power:** Once all internal connections are made, close your computer case. Connect the AC power cord to the PSU's inlet and then to a wall outlet or surge protector.



Figure 4.3: Rear view of the Antec NeoECO NE650G M PSU, showing the main power switch and AC power inlet.

7. **Power On:** Flip the power switch on the back of the PSU to the 'ON' position. You can now power on your computer.

## 5. OPERATING INSTRUCTIONS

The Antec NeoECO NE650G M PSU is designed for reliable and efficient operation. Key features include:

- **80 PLUS Gold Certification:** Ensures high power efficiency, reducing heat generation and electricity costs.
- **Fully Modular Design:** Allows for cleaner cable management and improved airflow within your PC case by only using the necessary cables.
- **Zero RPM Mode:** The 120mm silent fan will remain off at low loads (typically below 30% of total wattage) to provide absolute silence. As the load increases, the fan will automatically spin up to maintain optimal temperatures. This feature helps extend the fan's lifespan and reduces noise during light usage.
- **CircuitShield Protection:** Incorporates industrial-grade protections including OVP (Over Voltage Protection), UVP (Under Voltage Protection), OCP (Over Current Protection), OPP (Over Power Protection), SCP (Short Circuit Protection), OTP (Over Temperature Protection), and NLO (No Load Operation) to safeguard your system.



Figure 5.1: Front view of the Antec NeoECO NE650G M PSU, showcasing the 120mm silent cooling fan grill.

## 6. MAINTENANCE

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

- Dust Removal:** Periodically clean dust from the PSU's fan grill and vents using compressed air. Ensure the PSU is powered off and unplugged before cleaning.
- Cable Management:** Ensure cables are neatly routed and do not obstruct airflow within the PC case.
- Environmental Conditions:** Operate the PSU within recommended temperature and humidity ranges. Avoid extreme conditions.
- No User Serviceable Parts:** Do not attempt to open the PSU casing. There are no user-serviceable parts inside, and opening it will void the warranty.

## 7. TROUBLESHOOTING

If you encounter issues with your Antec NeoECO NE650G M PSU, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
PC does not power on.	PSU power switch is off. AC power cord is loose or disconnected. Cables to motherboard/components are loose. Faulty component (e.g., motherboard, CPU).	Ensure PSU switch is in 'ON' position. Check AC power cord connection to PSU and wall outlet. Verify all modular cables are securely connected to PSU and components. Test components individually if possible, or consult a technician.

Problem	Possible Cause	Solution
System powers on but shuts down immediately.	Overload or short circuit. Overheating. Faulty component.	Ensure total power draw does not exceed PSU capacity. Check for short circuits (e.g., loose screws). Ensure adequate ventilation and clean fan/vents. Test components individually.
Fan is not spinning.	Zero RPM mode is active. Fan malfunction.	This is normal at low loads. The fan will spin up when load increases. If fan never spins even under load, contact Antec support.
Unusual noises from PSU.	Dust buildup in fan. Coil whine (rare, but possible).	Clean the fan and vents. If noise persists and is disruptive, contact Antec support.

If the problem persists after attempting these solutions, please contact Antec customer support or refer to the warranty section for service information.

## 8. SPECIFICATIONS

Feature	Detail
Brand	Antec
Model Name	NE650G M
Form Factor	ATX
Wattage	650 Watts
80 PLUS Certification	Gold
Modularity	Fully Modular
Fan Size	120mm Silent Fan
Zero RPM Mode	Yes
Japanese Capacitors	Yes
Dimensions (LxWxH)	15 x 14 x 9 cm
Item Weight	1.5 kg
Compatible Devices	Personal Computer
Connector Type	ATX
Protections (CircuitShield)	OVP, UVP, OCP, OPP, SCP, OTP, NLO

## 9. WARRANTY AND SUPPORT

The Antec NeoECO NE650G M Power Supply Unit is backed by a **7-year warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use.

For warranty claims or technical support, please contact Antec customer service. Keep your proof of purchase for warranty validation.

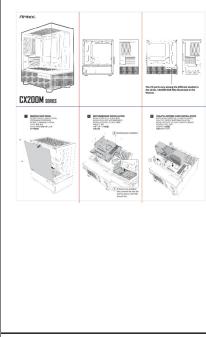
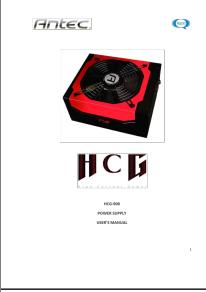
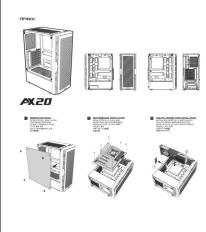
For more information, visit the official Antec website or refer to the contact details provided with your product packaging.



Antec provides a comprehensive warranty and is recognized as a top brand in PC components.

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## Related Documents

	<p><a href="#">Antec NeoECO Gold Modular NE750G M Power Supply Unit - Technical Specifications</a></p> <p>Detailed technical specifications for the Antec NeoECO Gold Modular NE750G M power supply unit, including wattage, efficiency rating, voltage, current, connectors, and dimensions.</p>
	<p><a href="#">Antec CX200M Series PC Case Installation Guide</a></p> <p>A comprehensive guide detailing the installation process for the Antec CX200M Series PC case, including steps for mounting the motherboard, graphics card, power supply, storage drives (HDD/SSD), and fans.</p>
	<p><a href="#">Antec HCG-900 Power Supply User Manual</a></p> <p>User manual for the Antec HCG-900 High Current Gamer power supply, detailing its features, specifications, system protection, and installation.</p>
	<p><a href="#">Antec AX20 Computer Case Installation Guide</a></p> <p>A comprehensive guide to installing components into the Antec AX20 computer case, covering side panel removal, motherboard installation, VGA/PCI-Express card installation, power supply installation, hard disk drive installation, fan installation, and liquid cooling radiator installation.</p>