



HCG-850M

POWER SUPPLY

USER'S MANUAL



## **HCG-850M**

Antec's HCG M power supplies are the perfect combination of power and efficiency. The HCG M features special heavy-duty High Current connectors and cabling that supply extreme levels of power, and superb efficiency thanks to 80 PLUS® BRONZE certification and Active PFC. HCG M's innovative 16-pin sockets create a new level of flexibility by doubling the modular connectivity, supporting two different 8-pins connectors and even future connectors of 10, 12, 14 or 16-pins. Highest-quality connectors, Japanese-brand capacitors, and a quiet 135 mm double ball bearing fan complete the package. CircuitShield™ makes the HCG-850M safe and reliable in any environment with its seven industrial-grade protections. If loads of power, High Current engineering and extreme efficiency are what you're after, the HCG M is the PSU for you.

## **STANDARDS AND FEATURES**

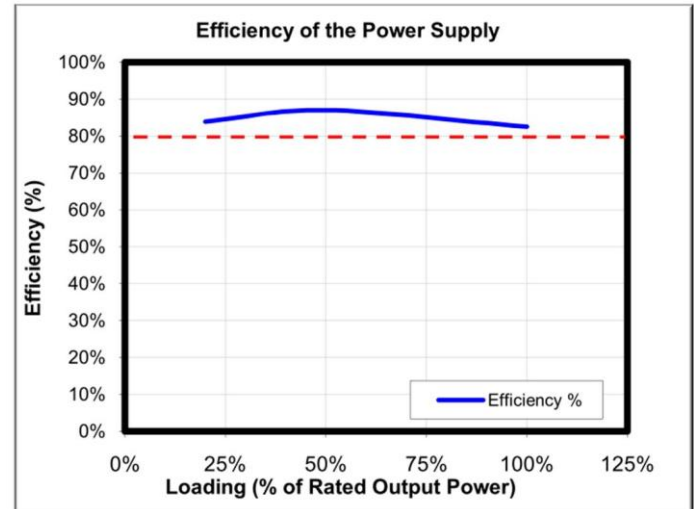
The connectors and power specifications of the HCG-850M PSU are all compatible with ATX12V v2.32 and EPS12V v2.92 specifications. The HCG-850M features Universal Input, which automatically senses when you connect the power supply to any AC power source between 100 - 240V without setting a voltage switch. This power supply also features Active Power Factor Correction (PFC), which improves the power factor value of the power supply by altering the input current wave shape, helping to power transmission across the grid.

## **SYSTEM PROTECTION**

A variety of industrial-grade safety circuitry will help protect your computer: Over Current Protection (OCP), Over Voltage Protection (OVP), Under Voltage Protection (UVP), Short Circuit Protection (SCP), Over Power Protection (OPP), Over Temperature Protection (OTP) & Surge & Inrush Protection (SIP). Sometimes the PSU will "latch" into a protected state. You will need to power off the PSU and clear the fault before it will function again. There are no user-replaceable fuses in your HCG-850M.

## 80 PLUS® CERTIFICATION

80 PLUS® certification is the most widely recognized independent standard in power supply efficiency. An 80 PLUS® certified power supply uses less energy and generates less heat to stay cooler, run quieter and last longer. The HCG-850M has been 80 PLUS® BRONZE certified to be at least 82% efficient at a wide range of operating loads; this will lower your operating costs and help protect the environment.



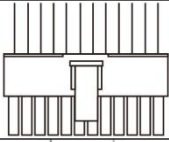
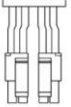
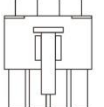
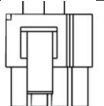

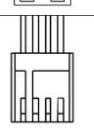
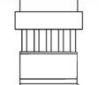
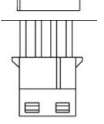
## POWER OUTPUT

To see the output capacity and regulation for each different voltage, see table 1.

**TABLE 1**

Output Voltage	Load Max.	Regulation	Ripple & Noise
+12V <sub>1</sub>	40A	± 5%	< 120 mV
+12V <sub>2</sub>	40A	± 5%	< 120 mV
+3.3V	25A	± 5%	< 50 mV
+5V	25A	± 5%	< 50 mV
-12V	0.5A	± 10%	< 120 mV
+5Vsb	3A	± 5%	< 50 mV

**TABLE 2**

Cable Quantity	Connectors	Socket	Description
1	 X 1	Fixed cable	24(20+4)-pin Motherboard
1	 X 1	Fixed cable	8(4+4)-pin ATX12V/EPS12V
1	 X 1	16-pin	8-pin EPS12V
2	 X 2	16-pin	8(6+2)-pin PCI-E
1	 X 3	5-pin	Molex + FDD
	 X 1		
3	 X 3	5-pin	SATA + Molex
	 X 1		

## MODULAR CABLE JACKS

There are five 5-pin black jacks and two 16-pin black jack on the back of your HCG-850M PSU. These jacks are for the optional cables that come with your power supply.

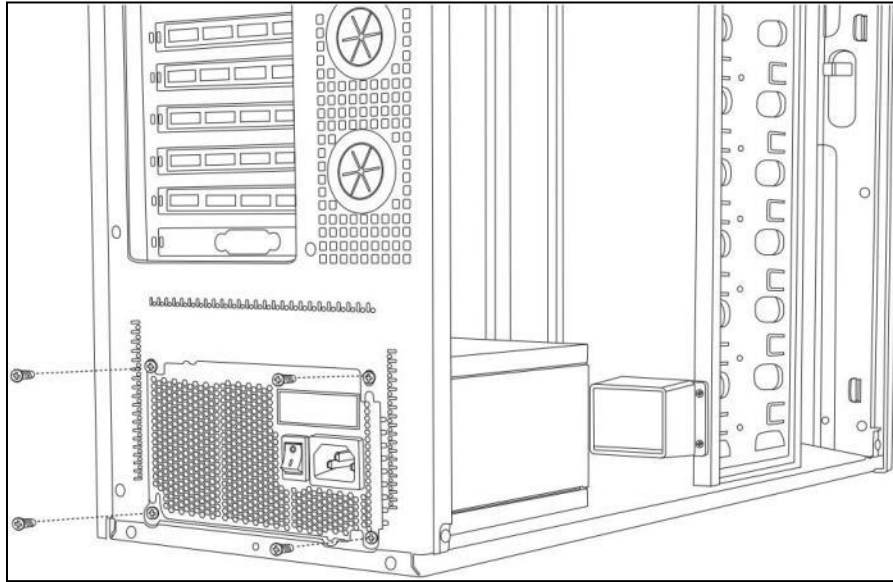
**Caution: Please connect only cables provided with this HCG-850M. Other cables may not be compatible!**



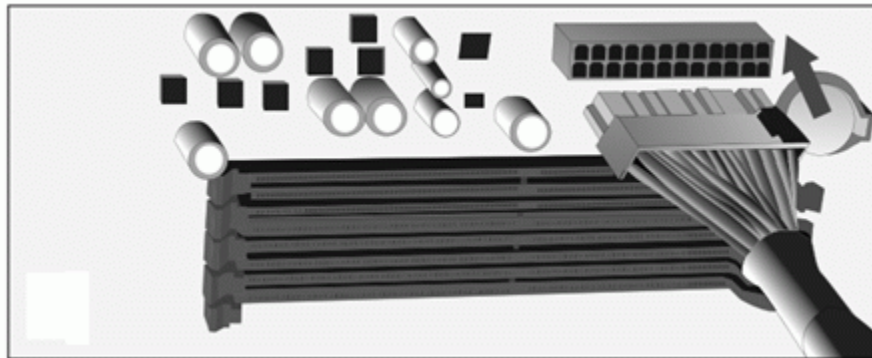
You can connect 1 or 2 modular 8-pin cables into any of the 16-pin sockets

## INSTALLATION

Install the PSU into either the top or bottom of your case with the four screws provided. Refer to your case manual if you are unsure where the power supply should be installed.

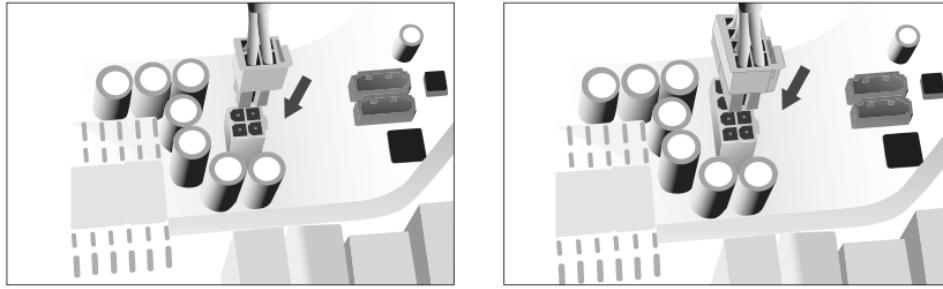


Connect the 24-pin main power connector to your motherboard.

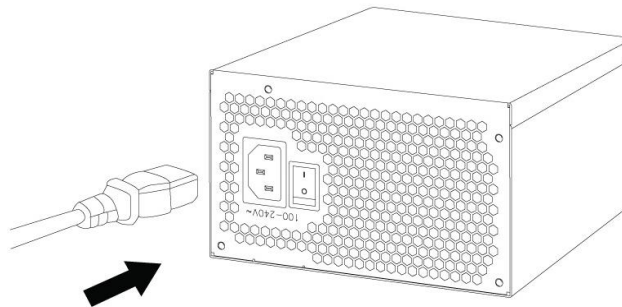


Connect the 8-pin or 4+4-pin connector for the CPU. If your motherboard has an 8-pin socket with a cover on some of the openings, we recommend that you remove the cover and use the 8-pin connector.

Note: Please also refer to your motherboards manual for any special instructions.



Connect the AC power cord to the power supply AC inlet. Be sure to use the heavy-duty cord supplied with your PSU.



PCI-E graphics cards use different amounts of power. For some, a single 6-pin connector is sufficient, making the hardwired connector the preferred choice. More powerful cards use multiple connectors, including the advanced 8-pin PCI-E connector. The 8-pin PCI-E connector on the PSU can be used as either a 6- or 8-pin connector.

Hard drives, optical drives (CD/DVD/BluRay™) and other accessories will use either the older 4-pin Molex connector or the newer 15-pin SATA connector. 4-pin Molex connectors have two black, one yellow and one red wire. The SATA connector has an additional orange power wire.

When you have all the connections secured, turn the switch on the PSU to the “|” position.



## Technical Support:

**[www.antec.com/support](http://www.antec.com/support)**

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