







HCG-520M

POWER SUPPLY

USER'S MANUAL





HCG-520M

The HCG-520M uses Intelligent Hybrid Cable Management. Cables that are important or mandatory are permanently connected to the PSU for the highest quality power delivery. There are modular jacks on the back of the PSU to add additional cables as needed. Using only the cables you need will reduce clutter and improve airflow inside your case. For the list of connected and optional cables, see table 2.

STANDARDS AND FEATURES

The connectors and power specifications of the HCG-520M PSU are all compatible with ATX12V v2.32 and EPS12V v2.92 specifications. The HCG-520M 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

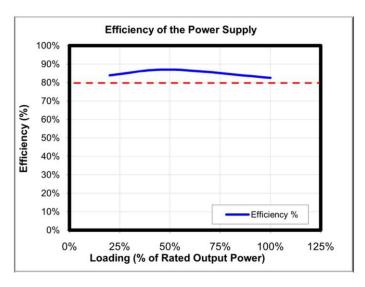
A variety of industrial-grade safety circuitry will help protect your computer: Over Current Protection (OCP), Over Voltage Protection (OVP), Under Voltage Protection (UVP), Short Circuit Protection (SCP), Over Power Protection (OPP) & Surge & Inrush Protection (SIP). Sometimes the PSU will "latch" into 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-520M.





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-520M 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 ₁	40A	± 5%	< 120 mV
+3.3V	24A	± 5%	< 50 mV
+5V	24A	± 5%	< 50 mV
-12V	0.8A	± 5%	< 120 mV
+5Vsb	2.5A	± 5%	< 50 mV





TABLE 2

Connectors		Socket	Description
	X 1	Fixed cable	24(20+4)-pin Motherboard
	X 1	Fixed cable	8(4+4)-pin ATX12V/EPS12V
	X 2	10-pin	8(6+2)-pin PCI-E
	X 3	5-pin	Molex + FDD
	X 3	5-pin	SATA
	X 2	5-pin	SATA + Molex
		X1 X1 X2 X3 X3 X1 X1 X1 X1	X1 Fixed cable X1 Fixed cable X2 10-pin X3 5-pin X4 5-pin X1 X2 5-pin

MODULAR CABLE JACKS



There are two 5-pin black jacks and four 10-pin red jacks on the back of your HCG-520M PSU. These jacks are for the optional cables that come with your power supply. A modular 10-pin connector system allows you plug 5-pin connectors into the 10-pin jacks if you run out of 5-pin jacks.

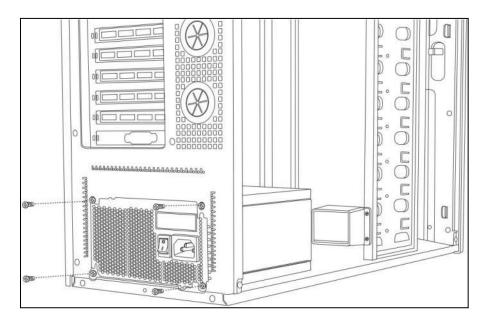
Caution: Please connect only cables provided with this HCG-520M. Other cables may not be compatible!



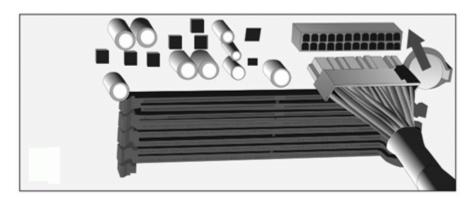


INSTALLATION

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.

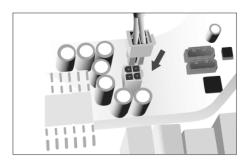


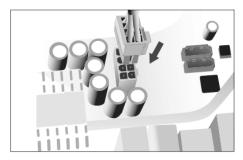
Connect the 8-pin or 4+4-pin connector for the CPU. If your motherboard has an 8-pin socket with a cover on some of the openings, we recommend that you remove the cover and use the 8-pin connector.

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

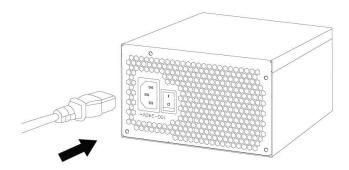








Connect the AC power cord to the power supply AC inlet. Be sure to use the heavy-duty cord supplied with your PSU.



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.





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