







# **GlacialTech®**

Enlighten Your Humanity

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Designed and manufactured by www.GlacialTech.com

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#### **Product Features**

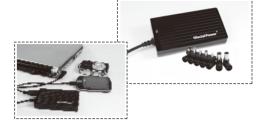
- □ Slim & portable
- □ Compatible with most of the laptops
- □ 8-level output voltage selectable for your laptop
- □ 5V/1A USB port to charge 3C devices
- □ Protections: SCP/OVP/OCP/OTP
- □ Power efficiency > 88%
- □ Convertible DC plug guidelines for choice
- □ RoHS compliance and 2 years warranty
- □ Maximum peak output power 90W

### SPECIFICATIONS

Model No / ( Purpose )	AC090N-0S (Indoor use)							
AC Input Voltage/Current/ Frequency	100-240VAC / 1.5A max. / 47-63Hz							
DC Input Voltage/Current	Non DC Input							
DC Output Voltage (Selectable)	12V	15V	16V	18.5V	19V	19.5V	20V	24V
DC Output Current	4.5A	4.33A	4.06A	3.51A	3.42A	3.33A	3.25A	2.71A
USB Port voltage/Current	5V / 1A							
Over Voltage Protection	Whenever the DC output voltage exceeds its 105~110%, the DC output will shut down automatically.							
Over Current Protection	Whenever the DC output current exceeds its 110~130%, the DC output will shut down automatically.							
Over Temperature Protection	Whenever its internal temperature exceeds 85°C, the DC output will shut down automatically.							
Short Circuit Protection	Whenever its DC output port is short-circuited, the DC output will shut down automatically.							
Dimension	104.2 x 57.3 x 17.1 (mm)							
Weight	0.2kg							
Operation Temperature/ Humidity	0 to 40°C / 5~95%							
Safety Approvals	CE / TUV / CUL / FCC / C-Tick / Gost							

#### Product Accessaries

- a. An AC input power cord havinga 2-pin plug
- b. A set of DC output plugs available to convert DC connectors
- c. A users' manual.
- d. A cable tie



## DC Output Plug Set

Туре	Size	Supports	
Α	4.75x1.7x9.5 mm	Acer,Asus,Clevo,Compaq,HP	
В	5.5x2.1x12 mm	Acer,Compaq,Gateway,Hitachi,IBM,NEC,Sharp, Toshiba,Twinhead	
С	5.5x2.5x12 mm	Acer,Asus,Clevo,Compaq,Fujitsu,Gateway,Hitachi,HP,IBM,NEC,Panasonic,Samsung,Sharp,Toshiba,Dell,Epson	
D	6.3x3.0x12 mm	Acer,Asus,Compaq,HP,Toshiba	
E	6.5x1.4x9.5 mm	Sony,Panasonic,Samsung,Fujitsu	
G	7.9xP0.9x12 mm	Dell	
н	7.4x5.1x0.6x12 mm	HP	
I	7.4x5.1x0.6x12 mm+IC	Dell	Optional
J	5.5x1.7x12 mm	Acer	Optional

### Operating steps

- a.Please read carefully this users' manual before using this adapter.
- b.To identify your laptop's DC input voltage, please read carefully the specifications set forth by a label at your laptop's bottom as follows:



Laptop brand (model) name



or a label at your original adaptor's bottom as follows:



- c.Please toggle the slide switch to equalize this adaptor's DC output voltage and your laptop's DC input voltage.
- d. To pick out a DC output plug that fits your laptop's power port, please cross-refer to the above table and the below table according to your laptop's brand name.

Brand name	DC Input Voltage	DC Output Plug Type	
Acer/Gateway	16/18/19/20V	A/B/C/D/J	
ASUS	19V	A/C/D	
DELL	19/20V	C/G/I	
Lenovo / IBM	16/19V	B/C	
HP/COMPAQ	15/18/19V	A/B/C/D/H	
SONY	16/19V	E	
TOSHIBA/NEC	15/19V	B/C/D	
FUJITSU/PANASONIC	16/19V	C/E	

- e.If your laptop's brand name is not listed in the two tables, please try to match one by one all the DC output plugs with your laptop's power port.
- f. If no DC output plug fits your laptop's power port, please contact your local distributors for further assistance.
- g.If you find the DC output plug that fits your laptop's power port, please connectthis adapter to the AC voltage source designated by the product specifications and your laptop.
- h.Please turn on that AC voltage source to check whether both this adapter and your laptop can work normally.
- i. If not, please make sure whether you have correctly followed all the instructions above.
- j. Before using the 5V/1A USB port to charge a 3C device, please prepare an USB wire for this port and that device. The output of this port will shut down automatically after that device is fully charged.

# Safety Approvals













## Cautions

- This adapter feeds only on an AC voltage source designated by the product specifications.
- Misusing an inappropriate voltage source may lead to product damage.
- ©Please do not connect this adapter to that AC voltage source before reading all the instructions above.
- OPlease put this adapter out of the reach of children.
- ©Please do not use this adapter to supply any laptop that consumes more than 65 watts.
- Please keep good ventilation for the adapter in use to prevent it from overheating.
- © For more information, please visit our website at http://www.glacialpower.com.