

## Biomass Stove with a 5 Watts Thermoelectric Power Generator

### Description

The unique biomass stove is designed not only to improve the cooking conditions and increase burning efficiency for fuel saving, but also come with a 5 watts thermoelectric generator for lighting during cooking and mobile phone or battery charging to improve life style. With special air flow arrangement in design, the stove can provide just enough air combustion to reduce smoke by natural ventilation and to save the fuel (the fuel could be wood, straw, animal dung, coal, etc.). Taping the thermoelectric technology, the small generator built into the stove can generate the electricity during the cooking by utilizing a small heat from the stove. The generator of the stove includes thermoelectric modules, fan, heat collector and heat sink. The thermoelectric modules will turn a bit of heat from the stove into electricity to power the fan and give extra 5 watts. The fan is powered by its own generator to cool down the cold side of the thermoelectric modules. The generator is equipped with the outputs of 5VDC for powering electronic products after eight minutes burning. The stove can heat up 3 liter water from 23 °C to 100 °C within 15 min and just consumes 350g wood. The unit is light in weight, small in size easy to carry for camping or outdoor cooking and also good for home in village where the electricity is not provided.



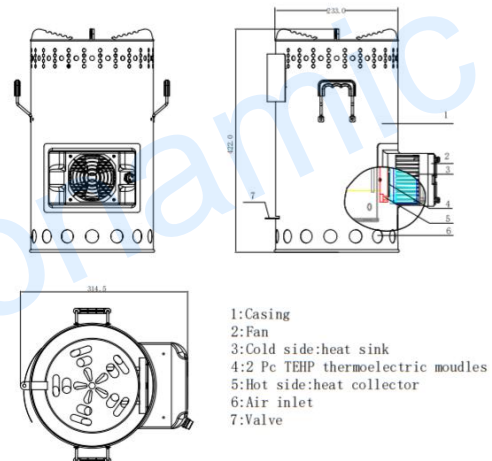
To generate free electricity during cooking



With the outputs: 5 VDC USB

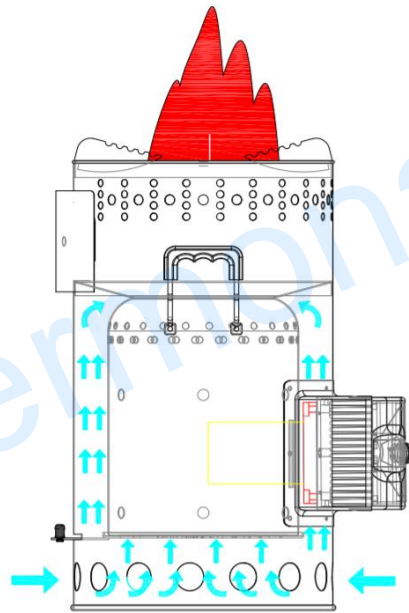
### Specifications :

Part Number	TEG-BS-5W-5V-1
Output Power	5 Watts
Output Voltage	5 VDC from a USB port
Maximum Temperature	450 °C ( Hot surface ) for generator
Dimension Size	422 mm × 314.5 mm × 233 mm
Weight	4.5 kg



The Diagram of the Biomass Stove with a 5watts Thermoelectric Generator

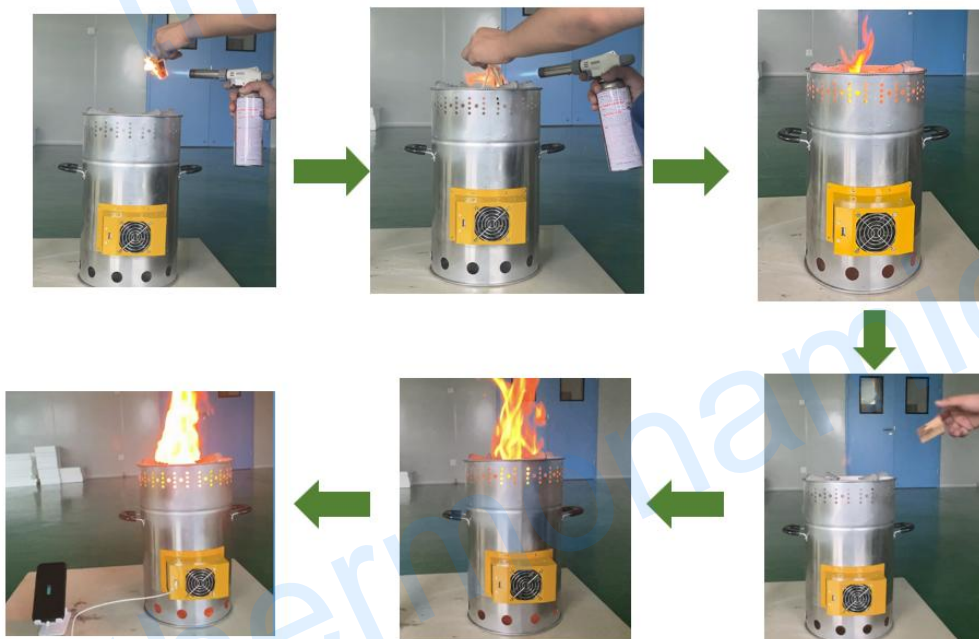
## How Does It Function



The natural ventilation airflow is circulated for combustion burning

## Instructions in use

- (1) Open the air control valve in side of the stove to get the air flow into combustion chamber from the holes in the bottom of stove.
- (2) Use like wasted paper or kerosene, butane, oil or small wood sticks and others easy burning stuffs to ignite, and add small dry woods in beginning to have the flame going large. And after, you can start to put briquettes or wood chips or biomass into stove for cooking. Please do not add too much fuel in one time, and add a bit while by while for well burning.
- (3) You can adjust the air control valve to control the flame easily, or close for slow cooking.
- (4) You will see the cooling fan of the generator start running after around 3 minutes of cooking. You can enjoy the electricity only when the fan is running in full speed..



Please see on the demonstration videos in web site to learn how to use.

**Notes**

- (1) Please aware the hot of the stove outer casing. Do not touch while in use.
- (2) After 5 minutes the stove is lighted, please check if the fan starts to rotate. If you do not see the fan running, Please stop and check.

**Packing List**

- |   |     |     |
|---|-----|-----|
| (1) 5 W biomass stove with a thermoelectric power generator | one | set |
| (2) 5 VDC USB   | one | set |

**Serial Number**

Date	
NO.	