Install Auber's Charcoal Smoker Controller on Big Green Egg Grill

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This quick guide demonstrates how to use Auber's charcoal smoker controller SYL-1615SYS-G on a Large Big Green Egg. The kit consists of 1) a probe for measuring pit temperature, 2) a PID controller, 3) a blower, 4) an adapter plate for blower, 5) a 12Vdc power supply, and 6) other accessories.



Figure 1. Components of Charcoal Smoker Controller Kit SYL-1615SYS-G.

We recommend you use the controller and the blower for maintain temperature instead of starting fire. So the blower should be mounted after fire has been established in the smoker. The installation of the controller kit is comprised of three simple steps: A) install the temperature sensor, B) mount the blower, C) adjust the top vent, and D) connect the probe and blower to the controller.

A. Install The Probe.

Simply clamp the sensor onto the grid. Avoid exposing the sensor directly to flames because it may give you an unstable temperature reading and may shorten the life of the sensor. Also avoid placing the sensor too close to the wall of the smoker, where the temperature is expected to be lower than the center. If you use a plate setter, placed the sensor above the plate setter to stay away the path of hot air.

B. Mount The Blower.

1) Insert the adapter plate into the slot of the bottom venting frame. The bent edge should be on the right-hand side and bending inwards.



Figure 2. Insert the adapter plate to the lower vent.

2) Lift the adapter slightly so that both the top and bottom edges are in the shutter guide groove while closing the damper (Figure 3a). The damper should rest on the bent edge as shown in Figure 3b.



Figure 3(a). Lift the adapter plate so both edges are in the groove.



Figure 3(b). Close the damper.

3) When mounting the blower, please make sure the fan is facing downward; otherwise, the shutter in the blower will not close when the fan is not running.



Figure 4. Mount the blower with the fan facing downwards.

C. Adjust The Top Vent.

Kamado style grills are very efficient in heat retention due to their good insulation. They require less fuel as well as less air/oxygen to maintain the temperature compared to other types of charcoal smokers. When using the blower to control air supply, especially when you cook at low or medium temperature range, you want to the top vent barely open. For instance, to maintain the temperature at 225°F while the ambient is at 60°F (165F rise), the top vent opening should be no more than 2.5 mm (0.1"). The picture below shows a convenient way to gauge the top vent opening. Under such condition, the blower only runs about $1\% \sim 2\%$ of the time to maintain this temperature. This opening should be good for most low and medium temperature cooking unless the ambient temperature is much lower or you cook at a higher temperature.



Figure 5. Leave the top vent barely open.

D. Connect the probe and the blower to the controller.

Then connect the probe the blower, and 12Vdc power to the controller. You can adjust the set temperature per your cooking recipe. The controller will pulsing the blower on or off to control the pit temperature. You can refer to the manual of SYL-1615SYS for details on how use the controller.

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