

## **PROCEDURE FOR GREENPLATE ® BARBECUE REPAIRS**

### **REPLACEMENT OF MICA PAPER INSULATION AND ELEMENT**

#### **Step 1**

With the barbecue unit sitting on its plate i.e. Upside down, remove rear cover 6 x 5 mm bolts

#### **Step 2**

With draw Thermostat / Thermocouple probe from its channel, unscrew drain pipe, and all 16 perimeter nuts on plate, [7mm socket required]

#### **Step 3**

Lift the whole assembly off the plate and set aside. Discard the old mica sheet, remove and clean the red gasket [alcohol or metholated spirits]. Thoroughly clean the back of the plate to remove any grease and sand off any lumps or bumps which could tear or damage the new mica. Check element for damage.

#### **Step 4**

Run a thin bead of red silicon around the plate between and around the 16 studs. Replace gasket bedding it into the red silicon. Run another bead in the same location around the red gasket.

#### **Step 5**

Form the precut Mica sheet [double sheets] onto the back of the plate and fold in the corners. At the entrance to the thermostat channel poke a small hole in the Mica sheets to allow access for the thermostat probe.

#### **Step 6**

Clean the perimeter of the element housing [where holes for the plate studs are]

#### **Step 7**

Lower the assembly onto the plate carefully, do not twist assembly, compress and do up the 16 nuts evenly.

#### **Step 8**

Clean and install drain pipe, metal and silicon washer around the base.

#### **Step 9**

Insert Thermostat /Thermocouple probe all the way into its channel. Check continuity to ensure thermostat / thermocouple is contacting the plate

#### **Step 10**

Mega-test between the element terminals and the casing. (Minimum of 5 mega-ohms at 250 Volt)

## **REPLACEMENT OF PRINTED CIRCUIT BOARD (PCB)**

### **Step 1**

With the barbecue sitting plate up, remove old PCB and refit with new PCB.

### **Step 2**

Remove old wiring harness from the inlet socket and BBQ. Rewire the inlet socket using the new wiring harness provided. Also remove the sensor wires from the BBQ element and replace with colour coded sensor wires provided (White sensor wire to red transformer lead, black sensor wire to black transformer lead. These sensor wires are polarity sensitive hence the marking on the PCB H+ White Wire and H- Black Wire

### **Step 3**

Re wire the PCB referring to the wiring diagram on page 6.

### **Step 4**

The pair of blue wires from the Thermostat are not polarity sensitive and can be plugged into the PCB T+ T- either way. The thermocouple plugs into the socket on the PCB.

### **Step 5**

Do not tightly bundle the cable loom, leave loose. Ensure all connections are tight, especially the element bolts.

## **REPLACEMENT OF THERMOSTAT / THERMOCOUPLE / TEMPERATURE MODULE**

### **Step 1**

Unplug Barbecue power and switch leads, undo drain pipe, lift barbecue from the bench and remove the rear cover.

### **Step 2**

Unplug blue sensor wires from the Thermostat or unplug Thermocouple

### **Step 3**

Remove the Front Knob and undo the 2 Phillips Head Screws.

### **Step 4**

Remove silver tape and withdraw the Thermostat / Thermocouple probe from its channel.

### **Step 5**

Unwind 3 coils of the new Thermostat and insert probe into channel all the way until it stops. Reinstall thermocouple

### **Step 6**

Replace front screws, cover and knob making sure the blue wire terminals are at the top.

### **Step 7**

Plug in the blue Thermostat wires, either way. Thermocouple to PCB socket.

### **Step 8**

Cover the Thermostat / Thermocouple channel with the silver tape (supplied)

### **Step 9**

Unplug Temperature module from PCB, undo bracket wingnut and withdraw unit. Refit new module.

### **Step 9**

Replace the rear cover, test and re install.

#### **Tools Required**

- Phillips Head Screw Driver

## **REPLACEMENT OF TOROIDAL TRANSFORMER**

### **Step 1**

Unplug Barbecue power and switch leads, undo drain pipe, lift barbecue from the bench and remove the rear cover.

### **Step 2**

Disconnect the transformer Live (Brown) and Neutral (Blue) wires from the PCB.

### **Step 3**

Using 2 x 13mm Spanners unbolt the Transformer terminals from the Element.

### **Step 4**

Using an M8 Long Socket remove the 4 bolts that hold the transformer plate to the BBQ body. You can now remove the old Toroidal Transformer from the BBQ.

### **Step 5**

Remove the mounting plate from the old transformer and install onto then new transformer.

### **Step 6**

Install new Toroidal Transformer in the BBQ. First installing the 4 perimeter nuts. Make sure the earth tab is re installed on the bottom right stud then install the 4 x M8 nuts that hold the transformer to the BBQ body.

### **Step 7**

Re connect the Transformer terminals to the element making sure you also re install the Heater Sensor Wires.

### **Step 8**

Re connect the Transformer live (Brown) and neutral wires to the PCB.

### **Step 9**

Replace the rear cover, test and re install.

## **TEST BARBECUE UNIT / REPLACE SWITCH**

### **Step 1**

Plug switch cable to socket in case, with hands clear, turn Thermostat to full, plug in barbecue to power, a short beep will be heard. Set Temperature Module to 320°C. If Switch light flashes slow Green then the Thermostat is off or faulty. Switch off power, turn on or replace Thermostat and repower unit.

### **Step 2**

Press Switch button. The unit will beep once, the Switch lights red and ~24vac should be read at the element terminals.

### **Step 3**

Turn thermostat off and Switch light goes green. Turn thermostat on, red Switch light will come on. Switch off by holding switch for 5 seconds and disconnect from power.

### **Step 4**

Allow to cool.

### **Step 5**

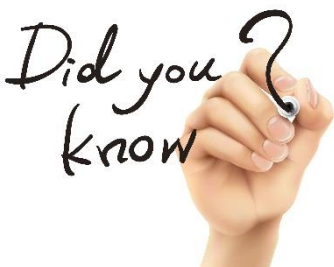
To install the replacement Switch to the bench, remove old Switch and Switch plate if required. Drill a 19 mm hole beside the existing Switch hole, install new Switch and cover plate to cover existing hole, plug into socket on Barbecue.

### **L.E.D. INDICATORS ON PCB**

|            |                                     |
|------------|-------------------------------------|
| Red Led    | Mains power available               |
| Yellow Led | 10.5 VDC available to timer circuit |
| Green Led  | Timer on                            |

### **Materials/Tools required**

- 7 mm socket and driver
- Multi grips for drain pipe
- 13 mm and 14 mm spanners for element
- Phillips head screw driver for caravan socket removal
- Cleaning alcohol or methylated spirits and clean rags



We have our maintenance videos on our website: to assist you with any repairs?

If you have any questions on installation or diagnosis, please don't hesitate to contact our Greenplate ® Technical Service Team on **0411 845 534** or **07 3245 3008**

# GREENPLATE © V21 PCB WIRING DIAGRAM

