Accessible service works on Patio:

Igniter
Igniter electrode
Thermocouple

How to change igniter unit in a Patio terrace heater

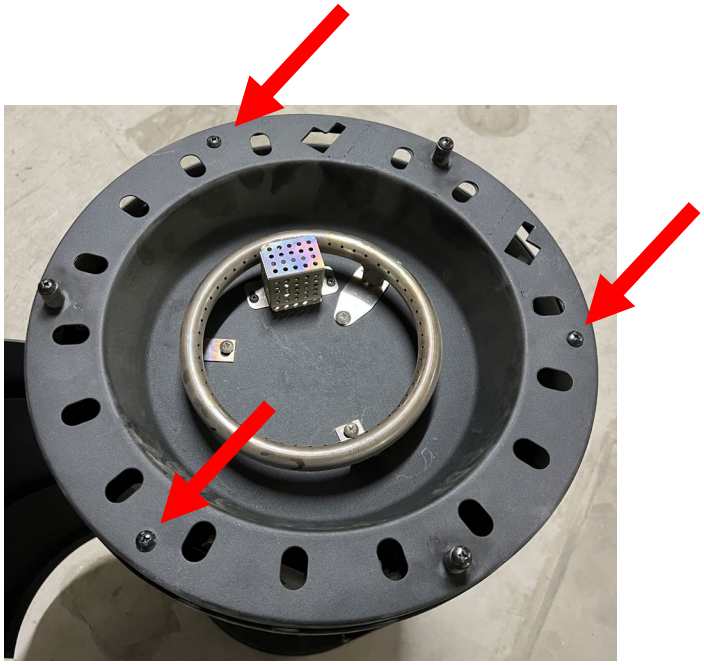




The Patio igniter is activated by pressing the soft rubber top, hereby creating an electrical circuit generating a series of sparks between the mass and the electrode, and hereby igniting the gas. (The cap screw must always be screwed totally in for it to work), If the igniter does not work : no spark when the rubber top is pressed in, there can be several causes:

-Battery weak or inversed.
-High tension cord damaged.
-Electrode bent away from burner
-Porcelaine isolation broken.
-Cap contact defect.
-Internal fault in igniter.

NB.: Cap screw button may be black or red

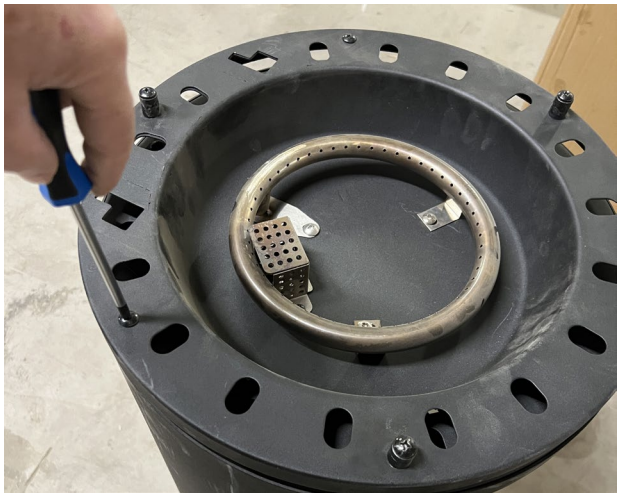


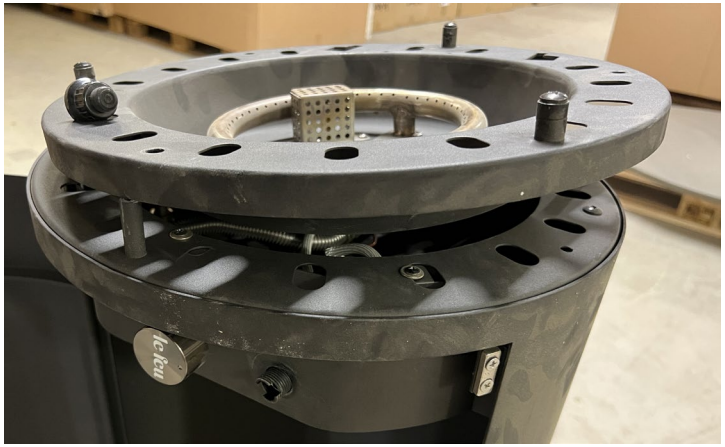
Burner rack retaining screws

If it is necessary to change the electronic igniter unit, please proceed as follows: After removing the lava stones, unscrew the 3 philips screws holding the burner rack. Unscrew the igniter retaining nut

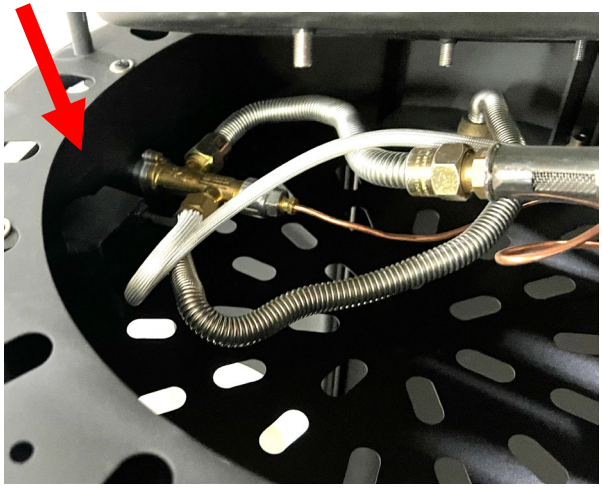


Igniter retaining nut





Carefully lift up the burner rack avoiding to twist the gas tubes too much, and take out the igniter.



Position of the igniter unit

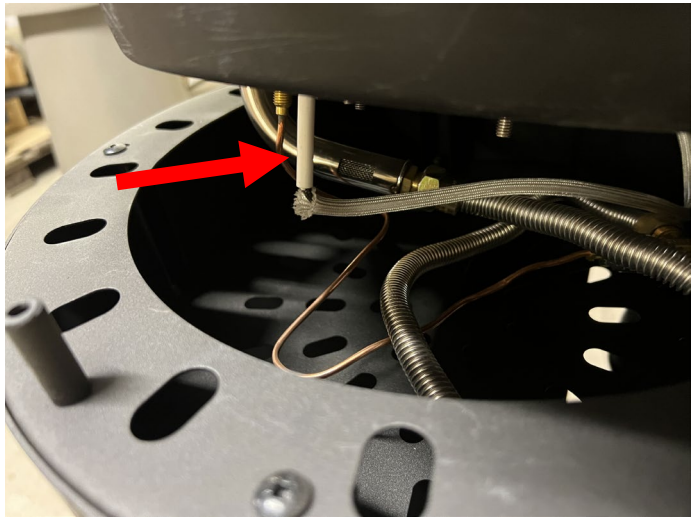




Pull the high tension wire out of the electronic igniter box, taking care not to stretch or damage the insulation.

Remark the copper ground profile (upper right image). It must have good connection with the base metal. If not, weak sparks may occur. You might need to scrape or sand paint away on the inside of the body to improve the contact.

Reassembly is the reverse of disassembly. Please avoid excessive bending and twisting of tubing and wiring, especially the high tension wire and insulation.

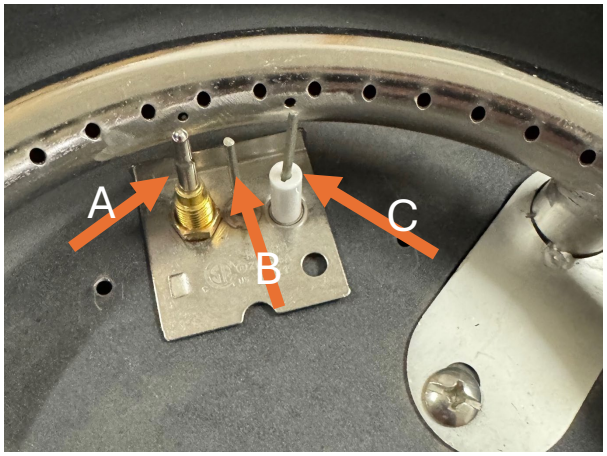


Porcelain. Avoid pulling or twisting

Changing igniter electrode and HT wire unit



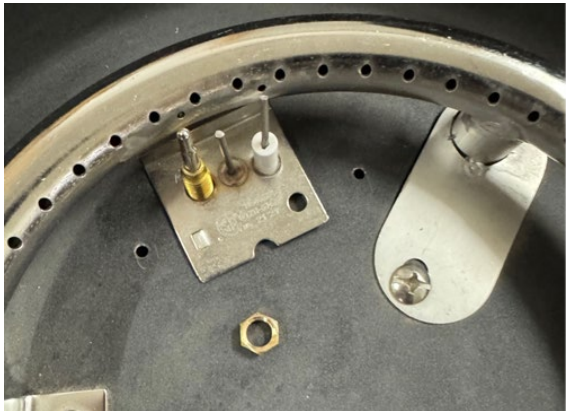
Remove service lid by unscrewing the 2 screws



Under the lid you find:
A: Thermocouple, a security device that shuts off the gas if the fire goes out for any reason.
B: Supporting pin to avoid that the service lid bends down.
C: Igniter electrode providing HT spark when activated.



Unscrew the retaining nut

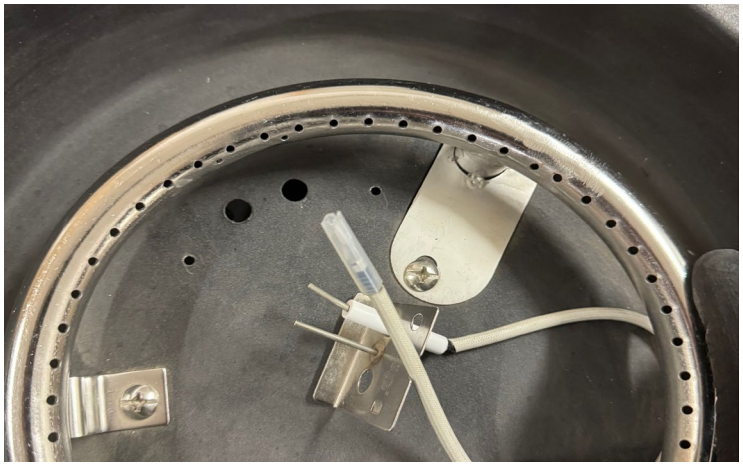


Now the unit can be dismanteled



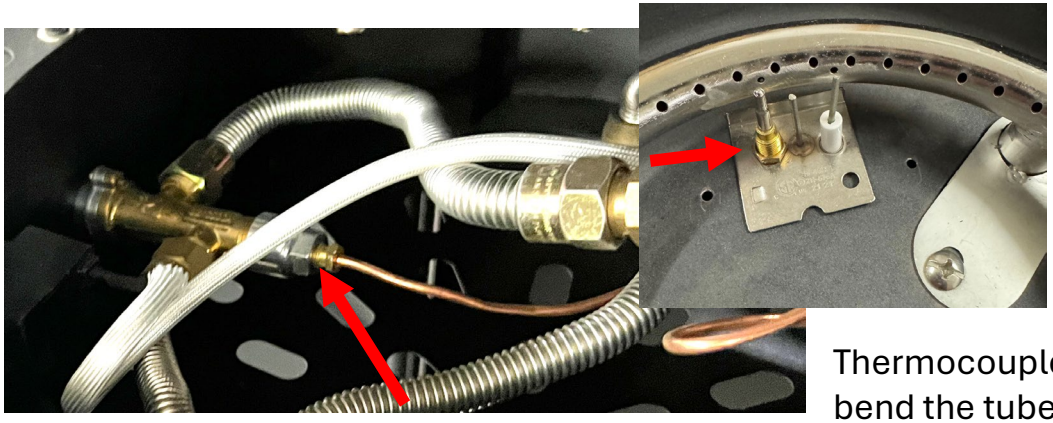


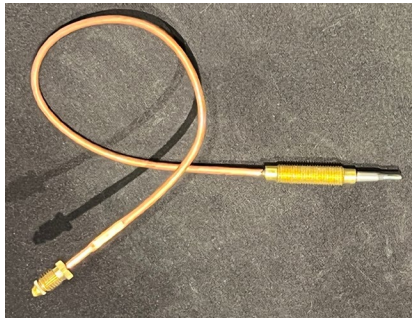
Push down the thermocouple and pull up the electrode unit with the HT wire



Reassembly is an exact reverse of the dismantling.
Be careful not to dislocate the lower retaining nut of the thermocouple as this might disturb it’s function. Avoid excessive twisting of gas tubes when acessing the valve / igniter location.

Changing thermocouple





Thermocouple. Do not exessively twist and bend the tube wiring

When the thermocouple is dismanteled and pushed down as shown in preceeding pages, it can be removed by unscrewing the retaining nut and pulling it out of the valve housing. When mounting a new, please see to that the lower retaining nut is located in the same position.

Purpose and functioning of the thermocouple:

Modern gas appliances with a high output are quipped with a flame safety device which ensures that the gas is shut off if the fire goes out for one reason or another, to avoid the risk of highly flammable gas flowing out, which is of course dangerous.
Technically, it works in the way that a so-called thermocouple, a probe consisting of two different metals welded together at one end, which, when it gets hot, sends a small galvanic current through a built-in coil in the valve housing, creating a magnetic field strong enough to keep a safety valve open.
When you push the button in for igniting, you force the safety valve open, and when you turn the button, you open the outflow of gas to the jets where it can be ignited, but to make the safety valve hold, you have to keep the button pushed in, keeping the valve correctly placed in the coil. Then the heating of the thermocouple should create the sufficient magnetic force to hold the valve already 3-4 seconds after the fire is lit.
Possible causes for the system not working correctly:
-The point of the probe is not correctly heated by flames.
-The retaining nut is not correctly tightened and not securing stable electrical contact to the valve coil
-Internal damage inside the probe (very rare)