TYPICAL IGNITER SYSTEM ON A GAS ROASTER:

MOST ALL GAS ROASTERS THAT ARE MANUALLY OPERATED CONSIST OF 3 KEY PARTS:

1. The Solenoid
2. The Igniter
3. The Igniter Needle

GAS LINE & GAS MOVEMENT

The gas from its source (Either a natural gas line into your building that is regulated with a NG gas regulator or a propane tank outside that has a LPG Regulator to cut gas down to no more than 27WC) goes to the roaster. Just before reaching roaster there should be a cut off valve in gas line. Then the gas connects to roaster gas line via a brass union (3/8" for LPG and 1/2" for natural gas) At the start of the roasters gas line is the Solenoid. After the solenoid the gas line leads to the needle gas valve which controls the pressure of gas going to burners. Next gas is pumped to the gas gauge which tells you how much gas pressure you are sending to the burners. Gas line continues next direct to the burners. For burners to burn properly there must be airflow going through burners then into and out of drum.

KEY PARTS TO IGNITER SYSYTEM

1. SOLENOID:

2 Types on BC Roasters

2. BC IGNITER UNITS

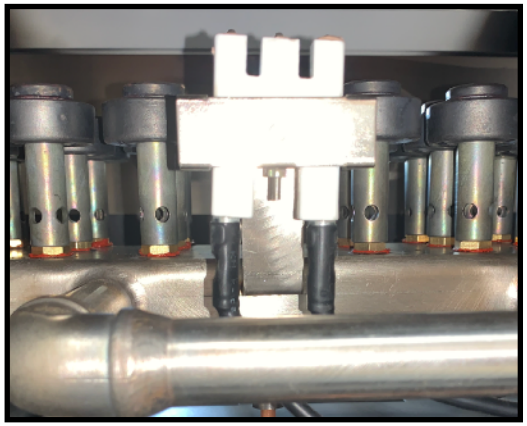
2015-2023 Igniter

2023-Newer Igniter

HOW IGNITER SYSTEM OPERATES

Once you press the igniter button on control panel and have the gas pressure turned on the needle gas valve on roaster the electronic igniter sends voltage to the Solenoid to open its valve and let gas go into gas line in roaster. At the same time the electronic igniter sends voltage to the igniter needle on the burners to spark. (You may see the sparking through the burner room window and/or hear a buzzing sound) When gas enters into burners (or in some cases the pilot burner) then the burners light. Once lit the sensor on the igniter needle senses that flame is lit and then igniter stops sending spark to igniter needle.

3. IGNITER NEEDLE



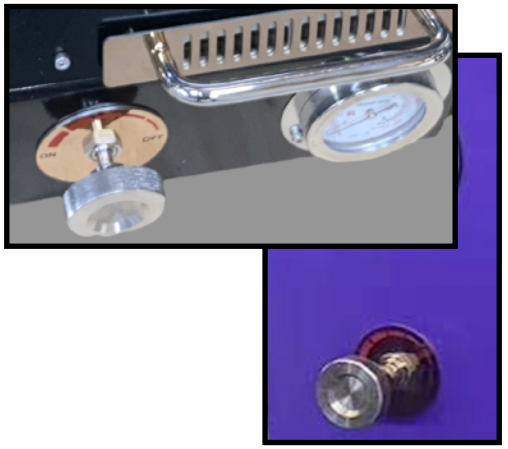
TYPICAL IGNITER SYSTEM ON A GAS ROASTER:

STARTING A GAS ROASTER

1. START:

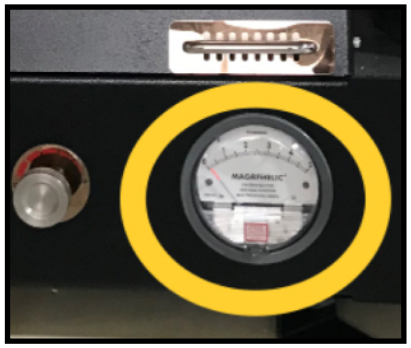
Press the **IGNITER BUTTON** on control panel. (Also named roasting)

2. Make sure **NEEDLE GAS VALVE** (or Pilot Valve) is turned on some (no more than 2-3KPA)



3. Make sure **AIRFLOW** is set to at least 1-2 on manual damper 2-3KPA)

4. Next you should see gas being sent to the **GAS VALVE** on Roaster & you should hear the sparking or 'buzzing' sound of igniter trying to light burners inside burner room.



4. Roaster should light within a few seconds. If it does not then the igniter will shut off power to the solenoid and it shall close cutting off gas pressure to gas gauge and burners and **alarm** will sound. If this happens simply depress igniter button and re-press it to start igniter process again. (When a roaster is cold and first started in the morning it may take a couple tries to light.

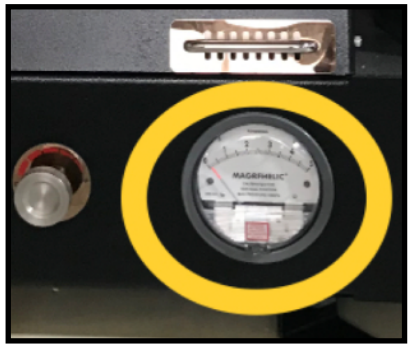
TYPICAL IGNITER SYSTEM ON A GAS ROASTER:

GAS MOVEMENT THROUGH ROASTER:

Once igniter button on control panel is pressed and opens the solenoid then gas travels to needle gas valve. When opening needle gas valve gas will go to gas gauge and then to burners

GASLINE TO SOLENOID

GAS TO NEEDLE GAS VALVE & WHEN OPEN TO GAS GAUGE



GAS MOVES TO BURNERS

IGNITER CONTROLS PROCESS

IGNITER CONTROLS GAS FLOW

The Electronic Igniter when started sends power to open the Solenoid and at the same time sends power to spark the igniter needle. As long as gas and proper airflow is reaching the burner room and all parts are functioning correctly then burners will light.

TYPICAL IGNITER SYSTEM ON A GAS ROASTER:

TROUBLE SHOOTING:

If Roaster does not light first check to make sure all settings are correct

PROBLEM	CHECK:	RESOLUTION:
ALL ABOVE PROCEDURES FOLLOWED BUT ROASTER DOES NOT LIGHT:	Is gas going from gas line into line into roaster? Check gas line or LP regulator.	Ensure that gas is reaching the roaster and there is no blockage in gas line. If using an LPG Regulator ensure it is functioning properly.
	When igniter button is pressed and needle valve is open is gas going to the gas gauge?	If you do not see gas going to gas gauge check to make sure needle gas valve is turning on smoothly. If no gas is reaching gas gauge check that solenoid is working.
	When Igniter button is pressed do you hear and/ or see the needle sparking?	If you do not hear the buzzing sound of needle sparking needle may need realigned or replaced or voltage may not be reaching it.
IF USING A 110 VOLTAGE CONVERTER: IS IT SETUP PROPERLY?	Is voltage converter properly set up with back switch set to 110, 115 or 120V? Is roaster plugged into the 220outlet?	If a voltage converter is used (commonly used on BC-1-8 Models) you must have roaster plugged into the 220V outlet and the back switch or button must be set to 110-120V. You can also test the converter to make sure it is working properly.
AIRFLOW INTO BURNER ROOM:	Is there some oxygen flowing through burner room. Oxygen is needed to start and keep flame burning.	If there is no airflow or airflow is blocked from pulling oxygen through burner room. Open the manual damper some and ensure the venting is clear and chaff fan working properly.
FLAME GOES OUT WHEN ROASTER REACHES A CERTAIN TEMPERATURE:	The OMRON BT Temperature controller controls turning off burner when the set temperature is reached. We preset most roasters to 460-480F so it will never go off during a roast.	Check to make sure no one has changed the BT OMRON to a lower temperature. If it is set below the maximum roasting temperature change it to a higher setting (460-480F)
IGNITER NEEDLE KEEPING SPARKING AFTER FLAME IS LIT	Check both the condition of needle (The ceramic filament) as well as the needle alignment	The sensor of needle (3rd needle) must be in flame to sense and turn off voltage to the needle. Also if ceramic in needle is cracked it should be replaced.

TYPICAL IGNITER SYSTEM ON A GAS ROASTER:

PARTS TO KEEP IN STOCK:

After warranty expires we recommend keeping at minimum the following parts in stock to avoid downtime:

1. IGNITER KIT
2. 2 Spare Thermocouples
3. Front & Back Bearings

WHAT TO DO IF YOUR ROASTERS IGNITER SYSTEM WILL NOT START:

1. Review this Information.
2. Review Information in manuals & online videos
3. Review information on our TECH Pages
4. If you still need help email the Tech or Parts Department:

TECH@BUCKEYECOFFEE.COM
PARTS@BUCKEYECOFFEE.COM

BC ROASTERS
GET YOUR ROAST ON

WWW.BCROASTERS.COM
WWW.BUCKEYECOFFEE.COM

TECH PAGE & MEMBERS PAGE:

http://www.buckeyecoffee.com/tech-support---parts.html

FREE MEMBERS ONLY PAGE
https://bcroasters.com/m/login?r=%2Fmembers-only-page

MEMBERS PAGE 2:
https://bcroasters.com/m/login?r=%2Fmember-only-page-2

MEMBERS PAGE 3:
https://bcroasters.com/members-only-page-3