



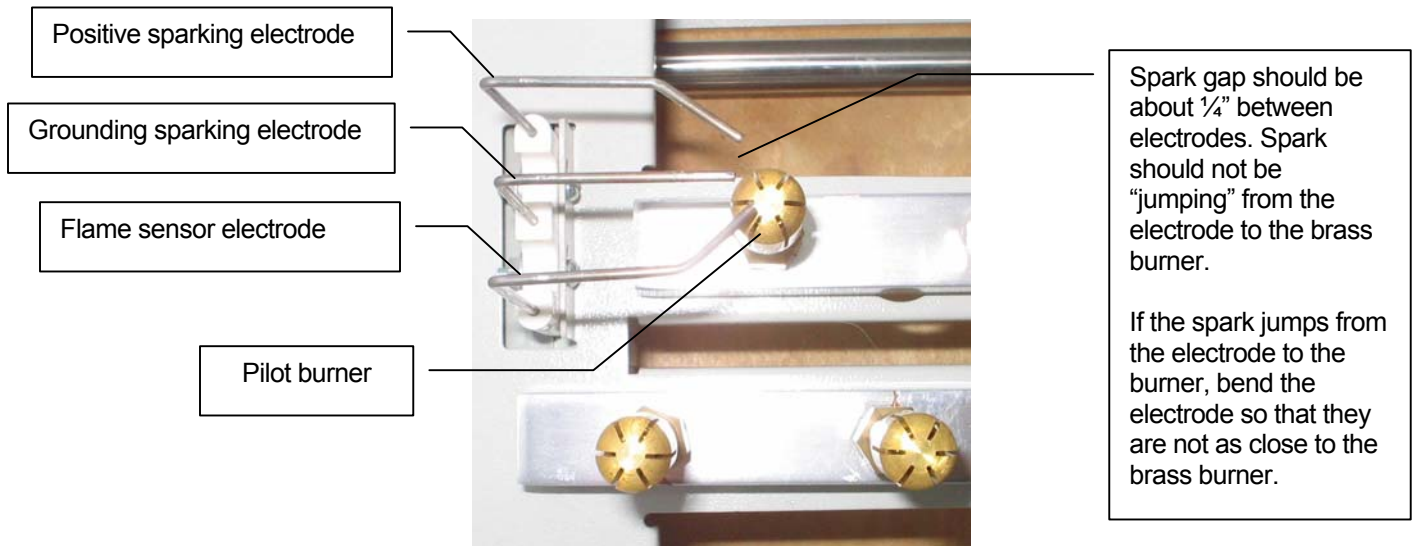
VCG CO2 generators simple troubleshooting

There are a couple of simple checks that can be performed if your VCG generator is not working correctly. Please be careful when working with the CO2 generator, allow it to cool before attempting to service it. The VCG-6 and VCG-27 have identical sparking and flame sensor electrodes position. The images are specific to the VCG-27, but the VCG-6 works identically.

1) The generator will not ignite the gas.

- a. Make sure the gas supply is working. After a couple of attempts to light it, a gas smell will indicate the gas is flowing to the burners. If not, listen for a “clack” noise when the power is first activated. The loud “clack” indicates the electrical solenoid is opening which allows the gas to flow to the burners. If you do not hear the loud “clack” there could be a problem with the solenoid. Contact the factory for help.
 - b. When the power is turned on, the spark should be heard as a repetitive clicking noise. If the clicking noise is not heard, there is a problem with the electronic ignition. Contact the factory for help.
 - c. If you hear the loud “clack” and the repetitive clicking noise, and you can smell gas, it is likely that the sparking electrode is not in the proper position to ignite the gas. A small adjustment of the positioning of the sparking electrode may be the solution.
- I. To check and adjust the position of the sparking electrodes, **allow the unit to cool**. Open the front cover to the unit by removing the 4 screws.
 - II. There are 2 electrodes that produce the spark. They are the middle and the one towards the back of the unit. Turn on the power to the unit and watch for the spark to occur.

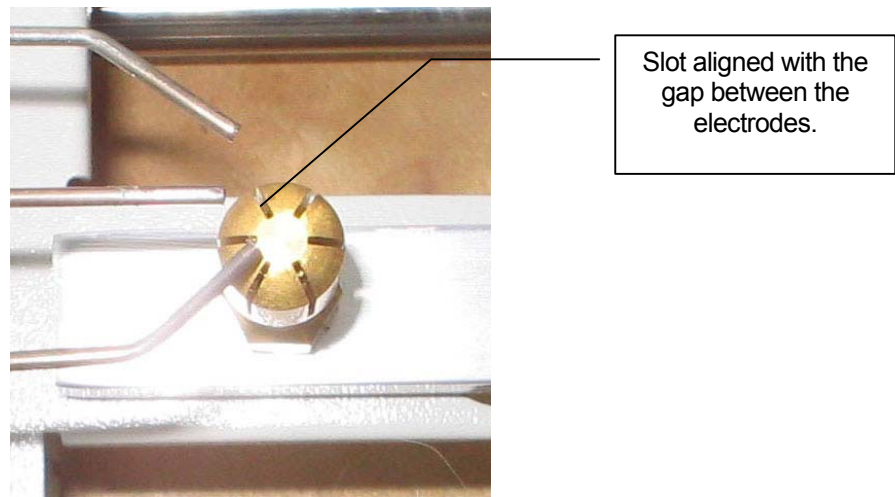
Image 1



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- III. Verify that the spark is “jumping” from the back electrode to the center electrode. (see image 1) If the spark is jumping from the electrode to the brass burner, the electrodes can be bent by hand to be slightly further away from the burner. The gap between the 2 electrodes should be about $\frac{1}{4}$ ”.
- IV. Once the sparking electrodes are producing the spark correctly, make sure that one of the slots is aligned with the spark. The slot allows gas to escape the burner and should be positioned so that the gas will flow between the electrodes that produce the spark.

Image 2



- V. If the burner slot is not aligned as shown above in Image 2, the burner can be turned using a 14 mm wrench so that the slot is positioned as above.
- VI. Once the burner is aligned correctly, test the unit again to make sure the unit lights each time.

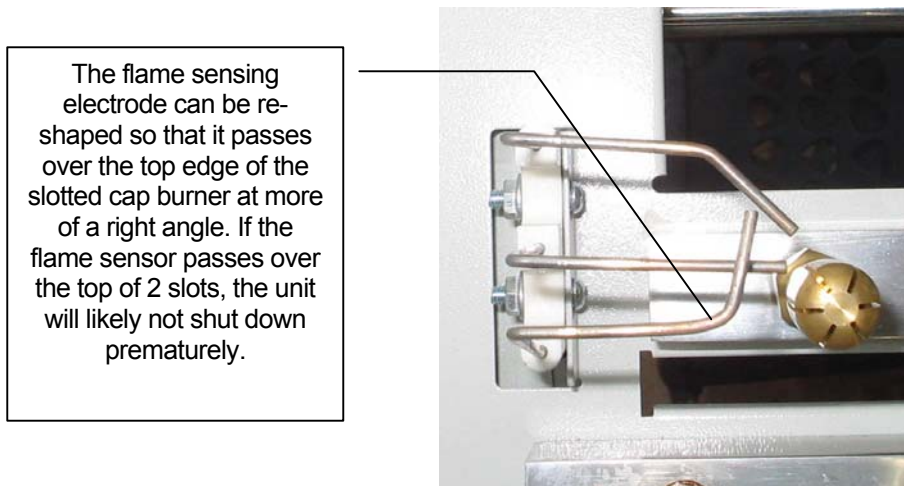
2) The generator starts up but will not stay lit or... the burners shut down every once in a while.

- a. Make sure the gas supply is working. Check your LP tank level or natural gas supply to make sure it is not being interrupted
- b. It is possible that the flame sensing electrode is not positioned correctly over the pilot burner. The flame sensing electrode is the one closest to the front of the unit. It must be positioned so that it is in direct contact with the blue flame coming out of the pilot burner. The blue flame itself conducts an electric current from the burner to the electrode, it is not simply a heat sensor.
- c. If the electrode does not appear to be positioned so that the blue flame envelopes the flame sensing electrode, the electrode can be bent by hand to be positioned better.

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- I. First make sure to **allow the unit to properly cool down**. The flame sensing electrodes and the burners themselves get VERY hot.
- II. Once the unit cools, the flame sensing electrode can be bent either by hand, or by using a small pair of pliers.
- III. Image2 on the previous page shows the original position of the flame sensing electrode. While the position is OK, it may be better to re-position and re-shape the electrode so that it extends at an angle over the top of the burner.

Image 3



- IV. Bending the electrode must be done with some care so that the white porcelain holder that secures the electrodes is not damaged. Hold the electrode with one hand or pliers while bending the tip with the other hand or pliers.
- V. Once the electrode has been re-shaped, test the unit again to make sure that it stays lit. If additional adjustments are required, make sure to **allow the unit to cool properly** before attempting to re-adjust the electrodes.

The 2 issues mentioned above are the most common causes of failures of the VCG units and both are easy to perform. If you have other questions or problems with the unit, you can call our technical support line at 520-705-2106.