

First... Props to the car... 2002 Jag XK8



If you are getting a check engine light or a strong gas smell coming from the trunk or the back of the car. You can have Autozone do a free code search. They will probably find an 0477 or 0455. ((Small EVAP system leak, or Large EVAP system leak))

There are three major possibilities the first being the purge valve malfunctioning, causing the CCV to stick open and venting vapors into the back frame of your car. The second is a faulty CCV (Canister Close Valve) The third is a leak in the tubing or canister system in the rear of the car. I will show you all three.

Purge Valve...

Purge Valve removal. Turn your front wheel. Take out the two screws that hold the wheel well on (Drivers Side) I found you can do everything you need without removing the whole wheel well.



Just pull the wheel well back a little to expose the purge.



Remove the bracket bolts holding the purge valve in place. Next pull the small hose from the bottom of the purge valve and start the car. You should here a vacuum sound. Put your finger over the hose end

and you should feel it suck. If you do not. That is probably your issue. Trace that hose to the engine compartment. It leads into the back of the engine towards the top, and then out the other side.



From here there is no reason not to refer to Rev Sam's excellent video on you tube. Just click the link.

<http://youtu.be/-86-StoOouU>

I bought my new purge valve from Terry's Jaguar (<http://www.terrysag.com/>) (800-851-9438) in Michigan. Mail order good price fast ship.

Canister Close Valve ++

Ok if you have ruled out the Purge valve as the problem. Then it is time to go a little deeper. You will need to get some wheel ramps to get under the back of the car.

Right next to the back wheels and springs you will see 2 black canisters, one on each side. About 9" long and 4" wide.



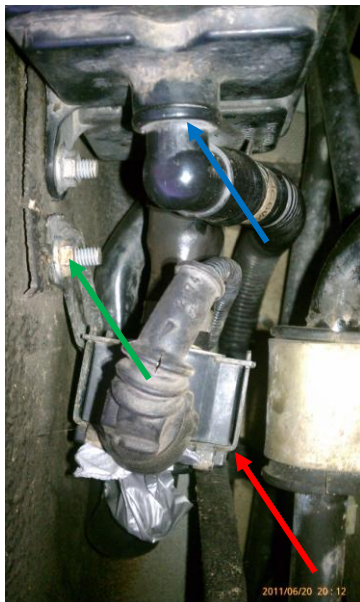
The drivers side canister is the first one in the line, and the bottom hose is the one that goes to the top of the gas tank in the trunk. See below. The top hose on the canister goes to the 2nd canister on the passenger side.



You should visually inspect the canister, and the hose connections. Making sure they are plugged in all the way. Now you can pull the hoses out and look to see if the green seal around the hose nipple is still in good shape. The hose ends actually come out pretty easily.



If these are ok, you can follow the top hose to the other side. It curves down and goes into the bottom of the 2nd canister (Blue Arrow Below). This side is not as easy. Here is where the CCV Canister Close Valve is located.(Red Arrow) The Canister close valve is held on by the hose and the bolt.(Green Arrow)



Unplug the CCV (Squeeze the connector after you slide the boot back)



At this point you should check the connections like you did on the other side.

If they are good, you will need to check the seals. You can just pull the bottom hose off to check it, but the top one is connected to a short hose and the CCV.

Remove the nut on the bolt (Green Arrow above) I had to remove the hose on the outlet side of the CCV. (The side without the short hose) Remove the clamps by using pliers to free up the tension. The CCV and the little hose should pull out. (With some force)



Check the seal that goes in to the canister. (Green seal) While you have the little hose off you should replace it. Jag mechanics point to this hose as the usual problem, because it dry rots and splits. You can buy hose for this at Autozone or other auto joints. You can also order the OEM from Terry's Jaguar (<http://www.terrysag.com/>) (800-851-9438)

You can test your CCV by taking some speaker wire and connecting to the 2 connectors in the harness. Then connect the wires to a 12 volt battery. You should here the valve close/open. If you do not, it is probably stuck. Rust flakes off the pipe that runs from the CCV to the Vent in the frame. It is right above the 2nd canister.

You need to order a new CCV. Terry's Jaguar (<http://www.terrysag.com/>) (800-851-9438) \$69. (CCV Part # Ljc1525Ab canister control valve, 0846005470 denso)

You should also do the TSB that is in this posting called Vent.

If you do all of this, and still have the gas smell you need to take the Canisters off all the way and inspect them for small cracks and small holes. It is pretty easy to do. Each have 3 bolts holding them on.



Also feel all around the hoses.

If everything checks out, then you can go into the trunk, and remove the carpet floor, back panel and drivers side panel. Pretty easy. Once off, you will see a sheet metal cover that covers the gas tank. Remove the 3 bolts at the top holding it in place. You can kind of bend it down then, or you can remove the bottom two bolts and remove it all the way. You will now see the hose that feeds the canisters. (Red Arrow)



Check this for cracks. Also check the other hoses going up to the gas fill. I started the car and sprayed soapy water on all these. Not sure if that did anything.



If everything checks out here, you should probably have the car smoke tested. I have still not found the source of my issue.