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## **#02-06-04-037I: Check Engine Light On, Fuel Tank Hard to Fill, DTCs P0442, P0446, P0455 or P0449 Set (Replace EVAP Solenoid) - (Sep 16, 2010)**

**Subject:** Check Engine Light On, Fuel Tank Hard to Fill, DTCs P0442, P0446, P0455 or P0449 Set (Replace Evaporative Emission (EVAP) Vent Valve Solenoid Assembly and Add/Relocate Filter Box Using Service Kit)



**Models:** 1999-2007 Chevrolet Silverado (Classic) Models  
1999-2007 GMC Sierra (Classic) Models  
2007-2010 Chevrolet Silverado Models (Including Hybrid)  
2007-2010 GMC Sierra Models (Including Hybrid)

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**This bulletin is being revised to add the 2010 model year and to include the Hybrid models. Please discard Corporate Bulletin Number 02-06-04-037H (Section 06 - Engine/Propulsion System).**

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### **Condition**

Some customers may comment about the check engine light being illuminated. They may also comment that their vehicle is difficult to fill with fuel or when filling, the pump continuously shuts off before the tank is full.

When checking the vehicle for DTCs, the ECM may report one or more of the following DTCs set as current or in history: P0442, P0446, P0449 or P0455.

### **Cause**

The EVAP canister vent solenoid (CVS) valve draws fresh air into the system through a vent.

Under certain operating conditions, dirt and dust intrusion into the EVAP CVS fresh air intake/venting system, may result in restricted air flow.

Under certain operating conditions, water, if ingested into the EVAP CVS fresh air intake/venting system, may reach the CVS valve causing corrosion in the CVS valve, and may cause restrictions in the fresh air intake path, when the valve is in the closed position.

### **Correction (1999-2007 Classic/Old Style Models)**

After following the published SI diagnostics and determining that the EVAP canister vent valve is

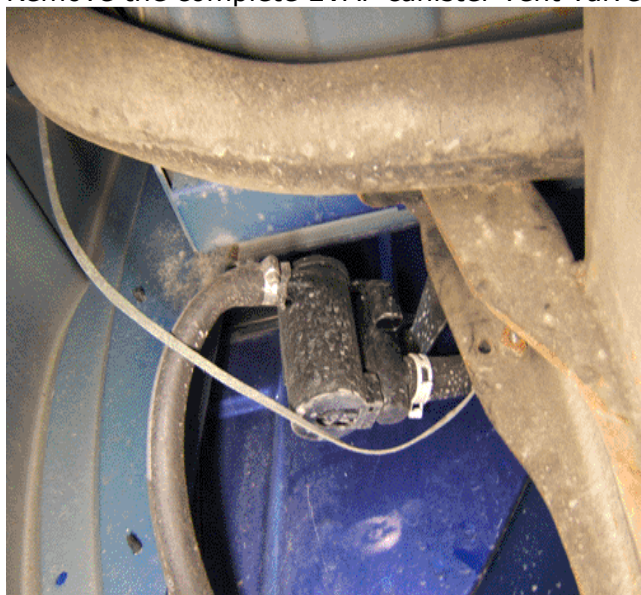
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the cause of the MIL light, replace the existing EVAP canister vent valve assembly with a new assembly. This new assembly is a sealed unit that is designed to be vented through a remote filter box. To ensure correct installation, follow the procedures below.

**Important:** DO NOT replace the EVAP canister assembly for this concern unless it fails the leak test.

### 1999-2003 Model Year (Use Service Kit P/N 19207762)

1. Raise the vehicle. Suitably support the vehicle.
2. Disconnect the EVAP canister vent valve electrical connector, if equipped.
3. Disengage the two vent valve pipe clips securing the pipe to the underbody. Remove the clips from the underbody and discard.
4. Disconnect the vent valve pipe at the EVAP canister.
5. Remove and retain the EVAP canister vent valve bracket mounting bolt.
6. Remove the complete EVAP canister vent valve assembly with bracket attached and discard.



**Important:** The new canister vent valve will be installed in a new location, outside of the frame.

7. Position and secure the new valve assembly to the frame bracket on the outside of the frame using the existing hole and mounting bolt.

#### **Tighten**

Tighten the bracket mounting bolt to 12 N·m (106 lb in).

8. Connect the vent valve pipe to the EVAP canister.
9. Install the two vent valve pipe clips into the existing underbody holes.
10. Connect the EVAP canister vent valve electrical connector, if equipped.
11. Attach bulk 5/8" heater hose to the vent valve port and secure using a clamp. Run a length as needed along the frame rail routing to the area above the transmission.
12. Cut the hose to determined length and install the supplied filter box. Secure using a clamp.
13. Remove the transmission support and lower the transmission assembly as necessary to allow

for access to the new filter box location.



14. Secure the filter box to the transmission vent hose just forward of the hose tee-section using a tie strap. DO NOT pinch or restrict the transmission vent hose. The filter box opening should be pointing downward.
15. Raise the transmission and reinstall the transmission support.
16. Tie strap the hose as needed along the frame rail in order to keep the hose away from pinch-points and heat sources.
17. Lower the vehicle.

### **2004-2007 Model Year (Use Service Kit P/N 19152349)**

1. Raise the vehicle. Suitably support the vehicle.
2. Disconnect the EVAP canister vent valve electrical connector.
3. Disconnect the canister pipe from the vent valve.
4. Push in the retainer and remove the existing canister vent valve from the fuel tank clip or mounting bracket. Discard the old valve.
5. Cut back the existing canister pipe approximately 51 mm (2 in) to remove the quick connect end.

**Crew Cab Short Box Shown Below, Other Configurations Similar**



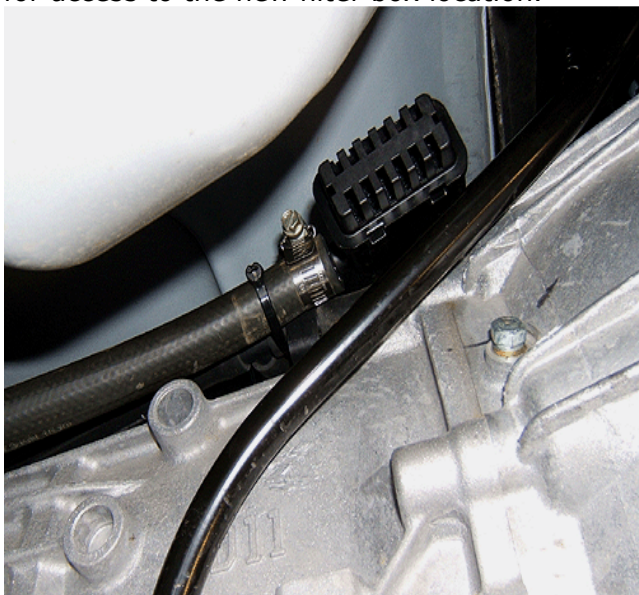
**Extended Cab Short Box Shown Below, Other Configurations Similar**



6. Install the new canister vent valve solenoid to the fuel tank clip or mounting bracket as shown above. The valve port closest to the electrical connector must point towards the canister.
7. Cut bulk 5/8" heater hose to a length of approximately 76 mm (3 in). Install the hose between the solenoid and the canister pipe and secure using clamps.
8. Attach bulk 5/8" heater hose to the vent port and secure using a clamp. Run a length as needed along the frame rail routing to the area above the transmission.
9. Cut the hose to determined length and install the supplied filter box. Secure using a clamp.
10. Remove the transmission support and lower the transmission assembly as necessary to allow



for access to the new filter box location.



11. Secure the filter box to the transmission vent hose just forward of the hose tee-section using a tie strap. DO NOT pinch or restrict the transmission vent hose. The filter box opening should be pointing downward.
12. Raise the transmission and reinstall the transmission support.
13. Connect the EVAP canister vent valve electrical connector.
14. Tie strap the hose as needed along the frame rail in order to keep the hose away from pinch-points and heat sources.
15. Lower the vehicle.

### **Correction (2007-2010 New Style Models)**

After following the published SI diagnostics and determining that the EVAP canister vent valve is the cause of the MIL light, replace the EVAP canister vent valve assembly and relocate the remote filter box. To ensure correct installation, follow the procedures below.

**Important:** DO NOT replace the EVAP canister assembly for this concern unless it fails the leak test.

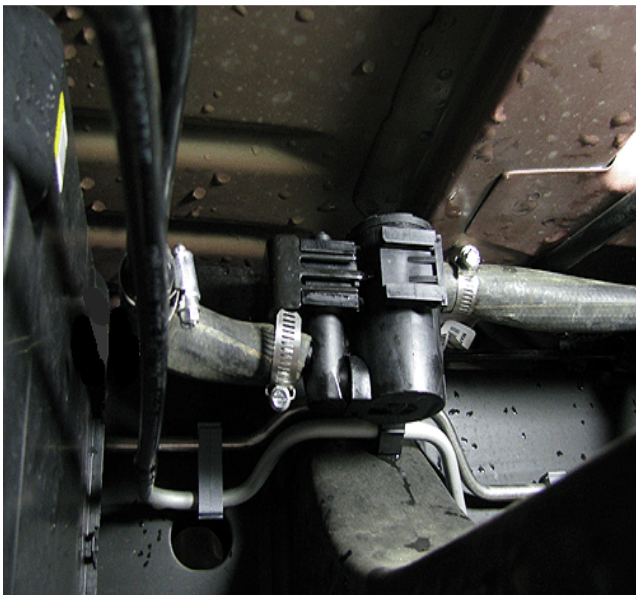
### **Use Service Kit P/N 19207763**

1. Raise the vehicle. Suitably support the vehicle.
2. Disconnect the EVAP canister vent valve electrical connector.
3. Disconnect the vent valve pipe quick connect from the canister.
4. Either cut the existing valve vent pipe and leave the remaining section of pipe in the vehicle or remove along with the valve.
5. Push in the retainer and remove the existing canister vent valve from the fuel tank clip or mounting bracket.
6. Cut back the existing canister pipe approximately 51 mm (2 in) and retain the pipe for use with new valve.
7. Connect the canister pipe quick connect to the canister.

### **2500 Crew Cab Short Box Shown Below, Other Configurations Similar**



**1500 Extended Cab Short Box Shown Below, Other Configurations Similar**



8. Install the new canister vent valve solenoid to the fuel tank clip or mounting bracket as shown above. The valve port closest to the electrical connector must point towards the canister.
9. Cut bulk 5/8" heater hose to a length of approximately 76 mm (3 in). Install the hose between the solenoid and the canister pipe and secure using clamps.
10. Attach bulk 5/8" heater hose to the vent port and secure using a clamp. Run a length as needed along the frame rail routing to the passenger side area above the transmission.

11. Cut the hose to determined length and install the supplied filter box. Secure using a clamp.
12. Remove the transmission heat shield, if necessary.
13. Remove the transmission support and lower the transmission assembly as necessary to allow for access to the new filter box location.



14. Secure the filter box to the transmission vent hose just forward of the hose tee-section using a tie strap. DO NOT pinch or restrict the transmission vent hose. The filter box opening should be pointing downward.
15. Raise the transmission and reinstall the transmission support.
16. Reinstall the transmission heat shield.
17. Connect the EVAP canister vent valve electrical connector.
18. Tie strap the hose as needed along the frame rail in order to keep the hose away from pinch-points and heat sources.
19. Lower the vehicle.

## **Parts Information**

<b>Part Number</b>	<b>Description</b>	<b>Qty</b>	<b>Material Allowance</b>
19207762 (1999-2003 Model Year)	Solenoid Kit, EVAP Emission Canister Vent Valve	1	--
19207763 (2004-2009 Model Year)	Solenoid Kit, EVAP Emission Canister Vent Valve	1	--
9438383 (5/8" X 25' roll)	Hose	Cut to Length	\$10.80 USD (\$22.59 CAD)
12337820 (10 per pack)	Tie-Strap	5	\$3.80 USD (\$4.55 CAD)
11609970 (10 per pack)	Clamp	2 (1999-2003) or	\$5.88 USD (\$12.52 CAD) (1999-2003) or
		4 (2004-	\$11.76 USD (\$25.03

		2008)	CAD) (2004-2008)
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Put unused material on the shelf for future use.

## **Warranty Information**

For vehicles repaired under warranty, use:

<b>Labor Operation</b>	<b>Description</b>	<b>Labor Time</b>
J7908*	Replace Evaporative Emission (EVAP) Vent Valve Solenoid Assembly and Add/Relocate Filter Box Using Service Kit	1.1 hrs**
* This is a unique labor operation for bulletin use only. It will not be published in the Labor Time Guide.		
**Diagnosis time is included in this labor time.		

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