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#09-06-04-025: Malfunction Indicator Lamp (MIL) Illuminated, DTCs P0300-P0306, Engine Runs Rough (Inspect for Water Intrusion in Spark Plug Recess Area, Replace Spark Plug and Ignition Coil, Seal Ign Coil Bolt Hole) - (May 12, 2009)

Subject: Malfunction Indicator Lamp (MIL) Illuminated, DTCs P0300-P0306, Engine Runs Rough (Inspect for Water Intrusion in Spark Plug Recess Area, Replace Spark Plug and Ignition Coil, Seal Ignition Coil Bolt Hole Vents and Seal Hood Air Grille)



Models: 2008-2009 Chevrolet Colorado, TrailBlazer
 2008-2009 GMC Canyon, Envoy
 2008-2009 HUMMER H3, H3T
 2008-2009 Saab 9-7X
 All Equipped With Engine RPOs LLR, LLV, LL8
 Please Refer to GMVIS

Condition

Some customers may comment that the malfunction indicator lamp (MIL) is illuminated.

Some customers may also comment that the engine runs rough.

The technician may find DTCs P0300, P0301, P0302, P0303, P0304, P0305, or P0306 set as current or in history, depending on which engine the vehicle is equipped with.

Upon further examination, the technician may observe evidence of water intrusion into the spark plug recess area.

Cause

This condition may be caused by an engine being exposed to a large quantity of water, which may result in some of the water seeping down past the vented threads of an ignition coil bolt, then flowing through the vent opening that is located in the bottom of the related ignition coil bolt hole, and collecting in the spark plug recess area.

Correction

Important: *DO NOT* reprogram or replace the engine control module (ECM) for this condition. If evidence of water intrusion in the spark plug recess area/s is not observed, then refer to the appropriate DTC procedures in SI.

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1. Observe the Misfire Current Counters parameter with a scan tool, in order to determine the affected cylinder(s).
2. Remove the air cleaner resonator and outlet duct. Refer to Air Cleaner Resonator and Outlet Duct Replacement in SI.
3. Disconnect the engine wiring harness electrical connectors from the affected ignition coil(s). Refer to Ignition Coil Replacement in SI.
4. Remove the ignition coil bolt(s) and ignition coil(s) from the camshaft cover. Refer to Ignition Coil Replacement in SI.

Note: If water is observed in ANY of the spark plug recess areas, then it will be necessary to apply Loctite® 565 PST Thread Sealant* to ALL of the ignition coil bolt hole vents and bolt threads.

5. Inspect for water intrusion in the spark plug recess areas.

Warning: Wear safety glasses when using compressed air, as flying dirt particles may cause eye injury.

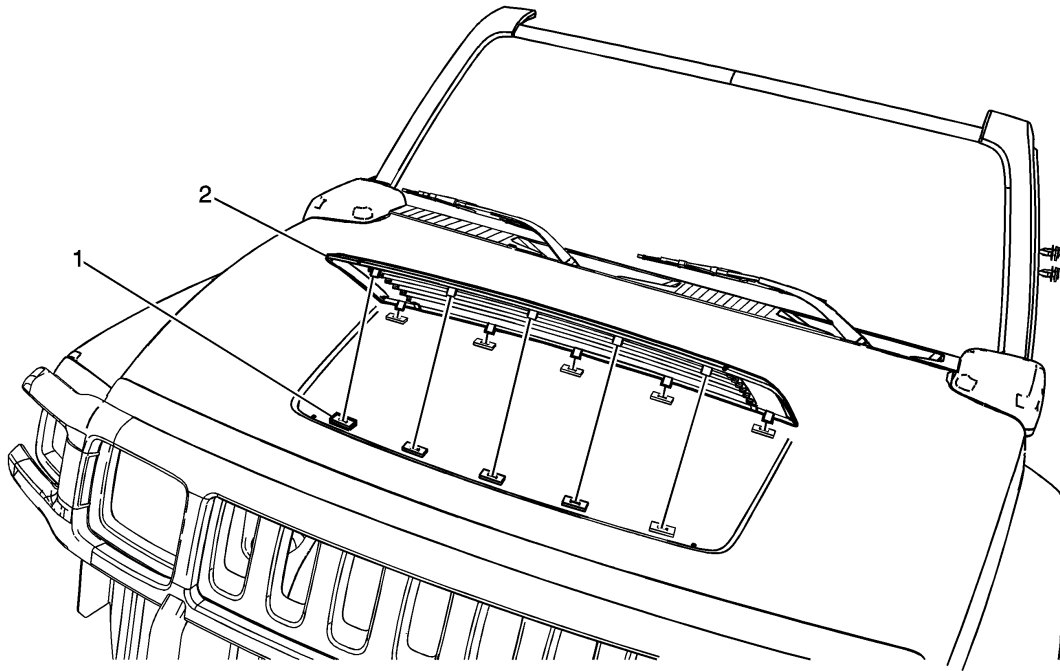
6. If any water is present, then remove the water from the spark plug recess areas with low pressure air.
7. Remove the affected spark plug(s) from the cylinder head. Refer to Spark Plug Replacement in SI.
8. Replace *ONLY* the affected spark plug(s) with new spark plug(s) as needed into the cylinder head. Refer to Spark Plug Replacement in SI.



9. Fill the bottom of the ignition coil bolt hole vent with Loctite® 565 PST Thread Sealant* as indicated in the illustration, and apply it to the ignition coil bolt threads also.
10. Replace *ONLY* the affected ignition coil(s) with new ignition coil(s) as needed. Refer to Ignition Coil Replacement in SI.
11. Connect the engine wiring harness electrical connectors to the ignition coil(s). Refer to Ignition Coil Replacement in SI.
12. Replace the air cleaner resonator and outlet duct. Refer to Air Cleaner Resonator and Outlet Duct Replacement in SI.
13. Clear the DTCs with a scan tool.

Hood Grille Modification Required for HUMMER Vehicles Only

1. Remove the hood air grille. Refer to Hood Air Grille Replacement (H3) or Hood Air Grille Replacement (H3T) in SI.



2. Secure 3M™ Strip Calk®, P/N 051135* around the *outside perimeter* of the integral retention clip (1) opening in the vehicle hood (all 4 sides of the rectangular slot).
3. Repeat this procedure for the remaining slots.
4. Install the hood air grille. Verify that it fits tightly against the hood. Refer to Hood Air Grille Replacement (H3) or Hood Air Grille Replacement (H3T) in SI.





5. Advise the customer to use care when washing the hood on the HUMMER vehicles. Extreme water pressure *should not* be directly applied to the edges of the hood air grille.

*We believe this source and their products to be reliable. There may be additional manufacturers of such products/materials. General Motors does not endorse, indicate any preference for, or assume any responsibility for the products or material from this firm or for any such items that may be available from other sources.

Parts Information

Part Number	Description	Material Allowance
12629472	COIL, IGN	--
12625058	SPARK PLUG (IRIDIUM)	--
051135 or Equivalent	3M™ Strip Calk® - 08578 Black 18.3 M (20 yds) Box	US \$1.00 (18 in) CAD \$1.50 (0.46 M)

Warranty Information (excluding Saab U.S. Models)

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time
J7929*	Ignition Coil and Spark Plug Replacement / Seal Ignition Coil Bolt Hole Vent	0.5 hr
Add	For Each Additional Cylinder	0.2 hr
Add	Seal Hood Air Grille	0.3 hr
*This is a unique labor operation for bulletin use only. It will not be published in the Labor Time Guide.		

Warranty Information (Saab U.S. Models)

For vehicles repaired under warranty, use:

Labor Operation	Description	Failed Object	Fault/Reason Code	Location Code	Warranty Type	Repair/Action Code	Labor Time
3411105**	Ignition Coil and Spark Plug Replacement / Seal Ignition	34111	16	0	01	01	0.5 hr*

	Coil Bolt Hole Vent					
*Add 0.2 hr for each additional cylinder using .99 time/OLH.						

**This labor operation number is for bulletin use only. This number will not be published in STM.

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