



DTC (Code) P0402 - 00 Codigo:	Bulletin: RD20-002 Date Fecha: August 03, 2020
Description:	Engine Exhaust Gas Recirculation Differential Pressure - Mechanical system not responding properly
Application:	US13 – US20 Emissions

General Information

These repair instructions are intended to address the following fault(s)::

DTC	Description	Possible Cause	Possible (Observable) Symptoms
P0402-00	Engine Exhaust Gas Recirculation Differential Pressure - Mechanical system not responding properly	<ul style="list-style-type: none"> • Connector • Wiring harness • EGR Valve • Charge air system leakage • EGR differential pressure sensor 	EGR mass flow above calculated value

Required Parts

Part Number	Description	Quantity
22181342 / 22172068 (Depending on model year)	EGR Differential Pressure Sensor	1
9812483	Extractor Tool	1

Repair Instructions

EGR Differential Pressure Sensor, Replacement

Removal

1. Secure the vehicle for service by parking it on a flat level surface, applying the parking brake, chocking the rear wheel, and placing the transmission in neutral.
2. Disconnect all cables from the negative (ground) and positive battery terminals to prevent personal injury from electrical shock and prevent damage to electrical components.

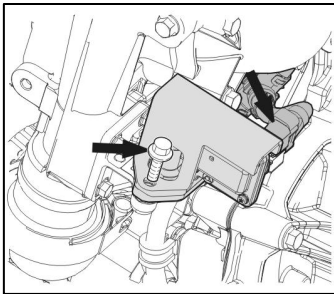
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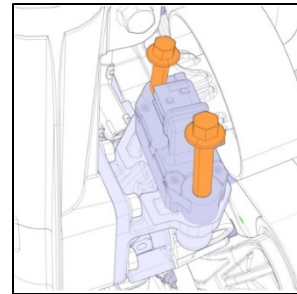
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3. Disconnect the wiring harness lead from the connector terminal on the EGR pressure differential sensor. Loosen and remove the mounting bolts and remove the EGR pressure differential sensor from the venturi tube. *Note: Install new sealing rings when replacing the sensor.*



Old Style EGR
Differential Pressure



New Style EGR
Differential Pressure

4. Clean the sealing surface where the EGR differential pressure sensor mounts into the EGR venturi tube. Ensure that the ports of the venturi tube are fully open and free of debris. *Note: If the ports to the EGR differential pressure sensor are clogged check the entire EGR system for clogging and debris. Clean the system as needed.*



Installation

Note: If replacing an old style EGR differential pressure sensor with a new style sensor, perform Installation Steps 1 through 3. If replacing a new style EGR differential pressure sensor with a new style sensor, skip to Installation Step 4.

Note: When installing the kit for the updated EGR differential pressure sensor for the D13 engine, the engine harness connector pins will need to be relocated. The previous pin locations were:

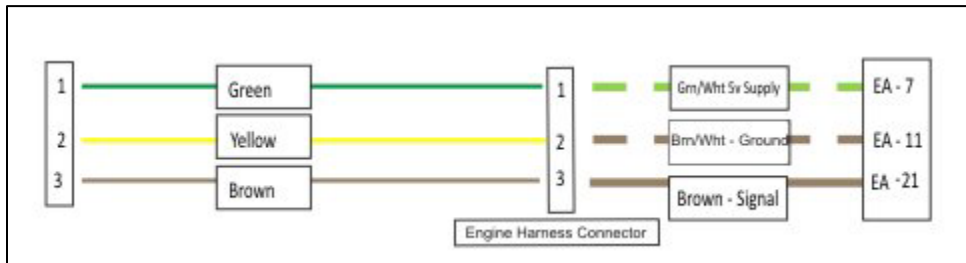
- Pin 1 — Green/White
- Pin 2 — Brown
- Pin 4 — White/Brown

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Note: The new engine harness connector pin locations when replacing old style EGR differential pressure sensor with the new style sensor in kit are:

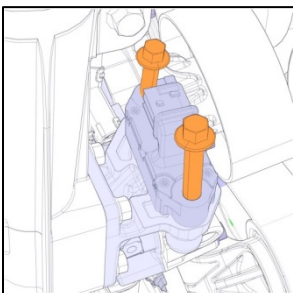
- Pin 1 — Green/White
- Pin 2 — Brown/White
- Pin 3 — Brown



1. Clip applicable cable ties and remove P-clamps securing the EGR differential pressure sensor harness leg.
2. Use extractor tool (part number 9812483) in kit 88890037 to relocate the engine harness connector pins.
Special tools: 9812483
3. Connect the EGR differential pressure sensor jumper harness to the engine harness.



4. Install the EGR differential pressure sensor.
5. Install the EGR differential pressure sensor fasteners. Tighten fasteners to specification. Refer to Function Group 20, Specifications.





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- 6. Connect the EGR differential pressure sensor harness.
- 7. Install all previously removed cables to the ground (negative) battery terminals.
- 8. Due to the electronic control module (ECM) self-learning capability, it is necessary to reset learned ECM parameters after servicing some engine related components. This allows the ECM to learn the new components behavior. After servicing is complete, perform the "Learned Data Reset" using Tech Tool. This is located in the Function Group 1 menu.

Additional Resources

These repairs are the most likely fix for the identified fault, if this does not fix the issue, Tech Tool will need to be used for more detailed diagnostics. If filing a warranty claim, please include the ASIST case number.

Labor Code	
2939-03-02-01	0.4
Causal Part	22181342 / 22172068