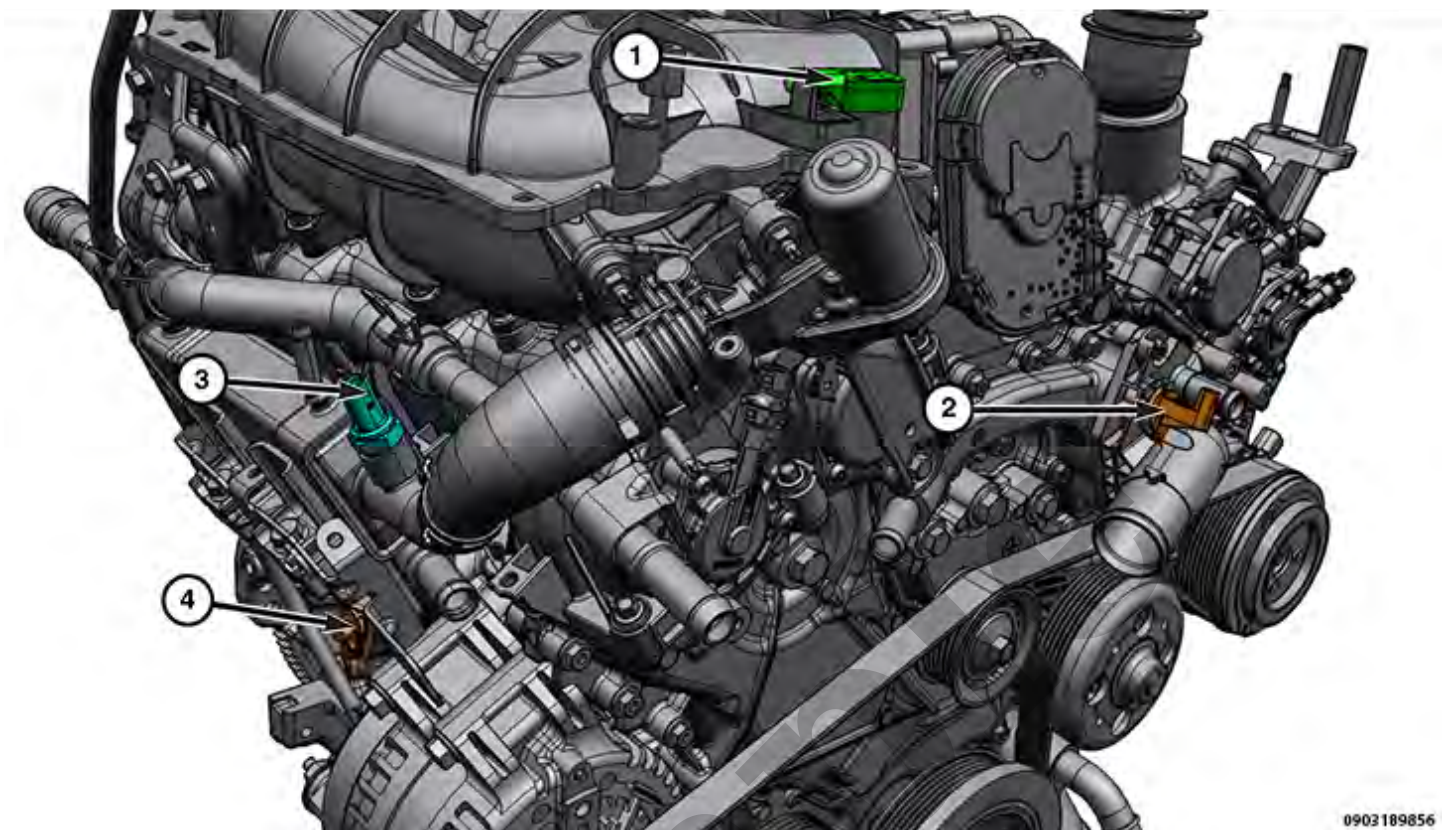


# Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

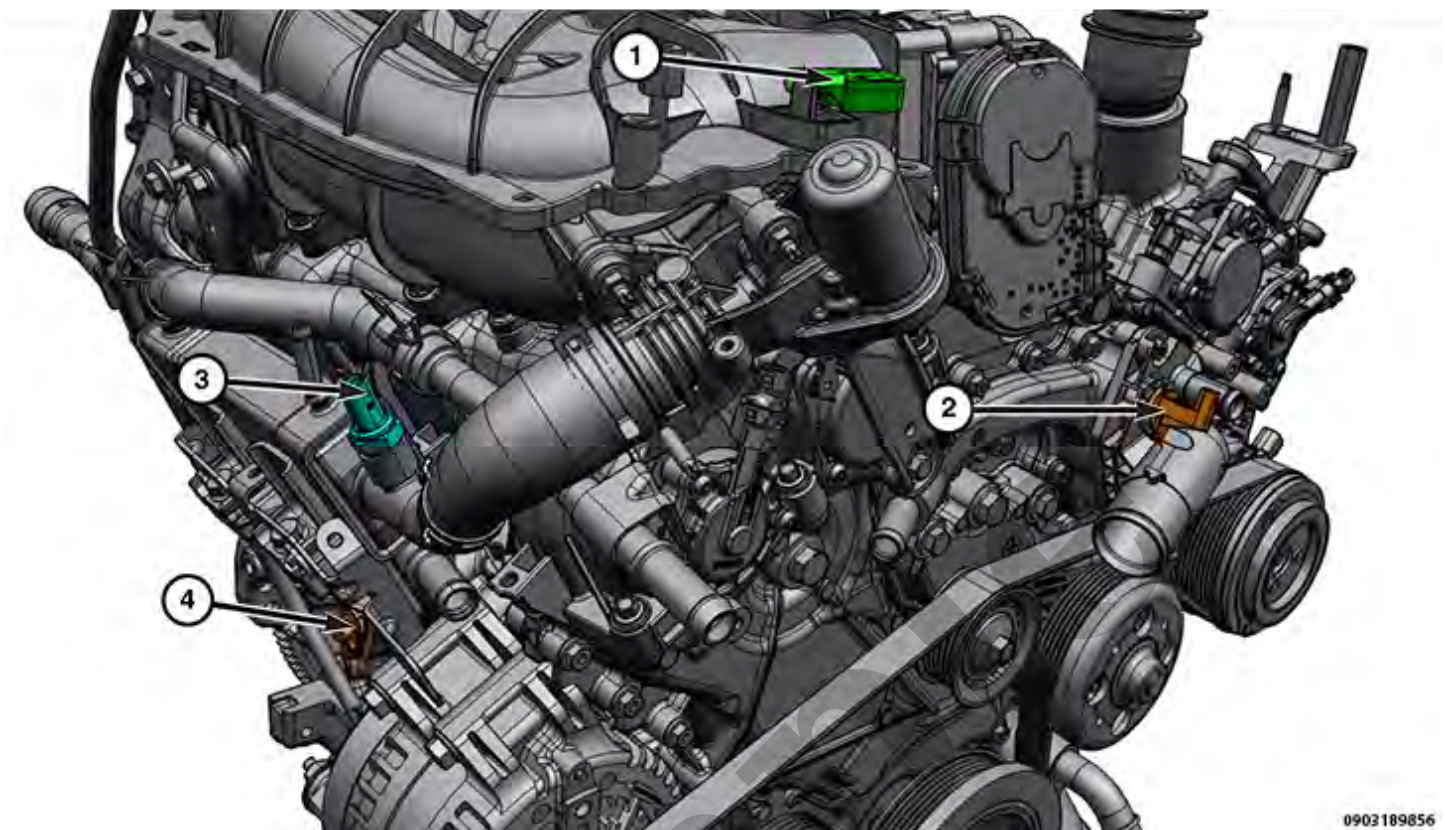
## 2010 Jeep LIBERTY Service Manual

[Go to manual page](#)



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CALLOUT	DESCRIPTION	SPECIFICATION	COMMENTS
1	Map Sensor	-	-
2	Coolant Temperature Sensor	<b>1/4 Turn to Engage</b>	-
3	EGR Temperature Sensor	<b>37 N·m (27 Ft. Lbs.)</b>	-
4	Crankshaft Position (CKP) Sensor Bolt	<b>10 N·m (89 In. Lbs.)</b>	-



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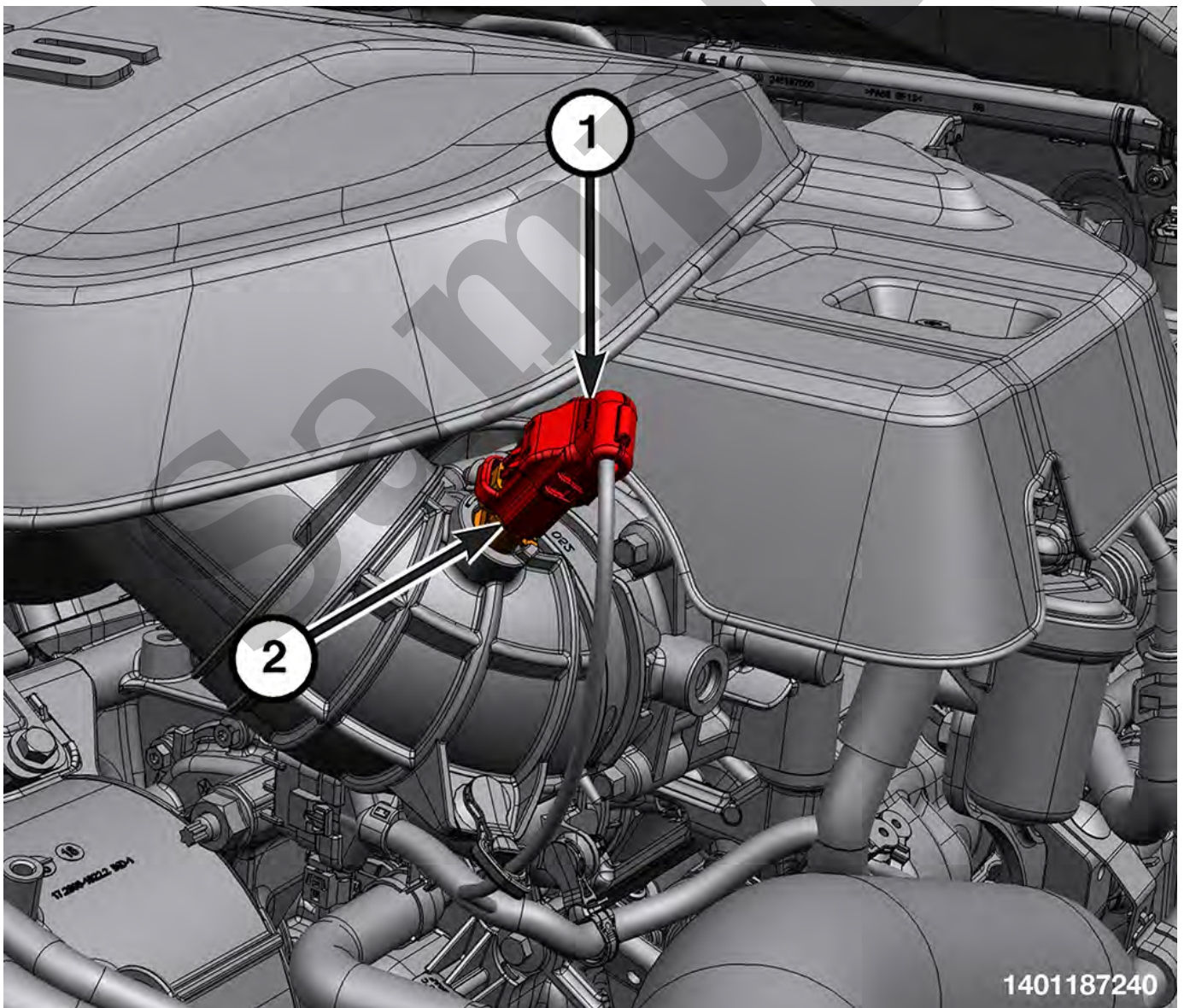
YOUR CURRENT VEHICLE

## Intake Air Temperature (IAT) Sensor

### INTAKE AIR TEMPERATURE (IAT) SENSOR

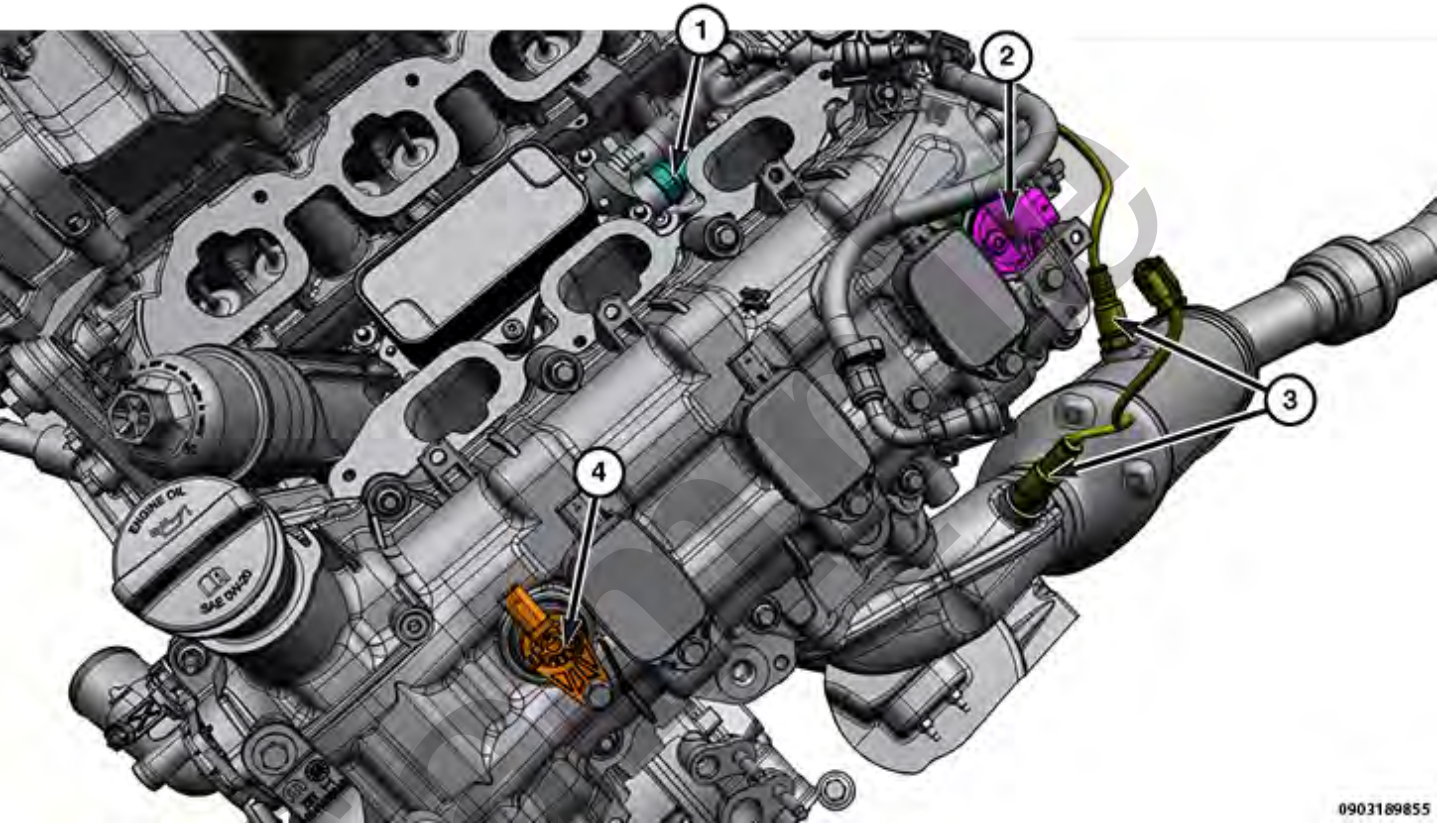
#### REMOVAL

1. Clean any dirt from the Intake Air Temperature (IAT) sensor base on the air cleaner resonator.



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CALLOUT	DESCRIPTION	SPECIFICATION	COMMENTS
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1	Engine Oil Pressure (EOP) Sensor	20 N·m (15 Ft. Lbs.)	-
2	Camshaft Position (CMP) Sensor to Cylinder Head	9 N·m (80 In. Lbs.)	-
3	Oxygen (O2) Sensor	50 N·m (37 Ft. Lbs.)	-
4	Oil Control Valve	8 N·m (71 In. Lbs.)	-
-	Oil Temperature Sensor to Cylinder Head	11 N·m (8 Ft. Lbs.)	-

## Oxygen Sensor 1/1

### OXYGEN SENSOR 1/1

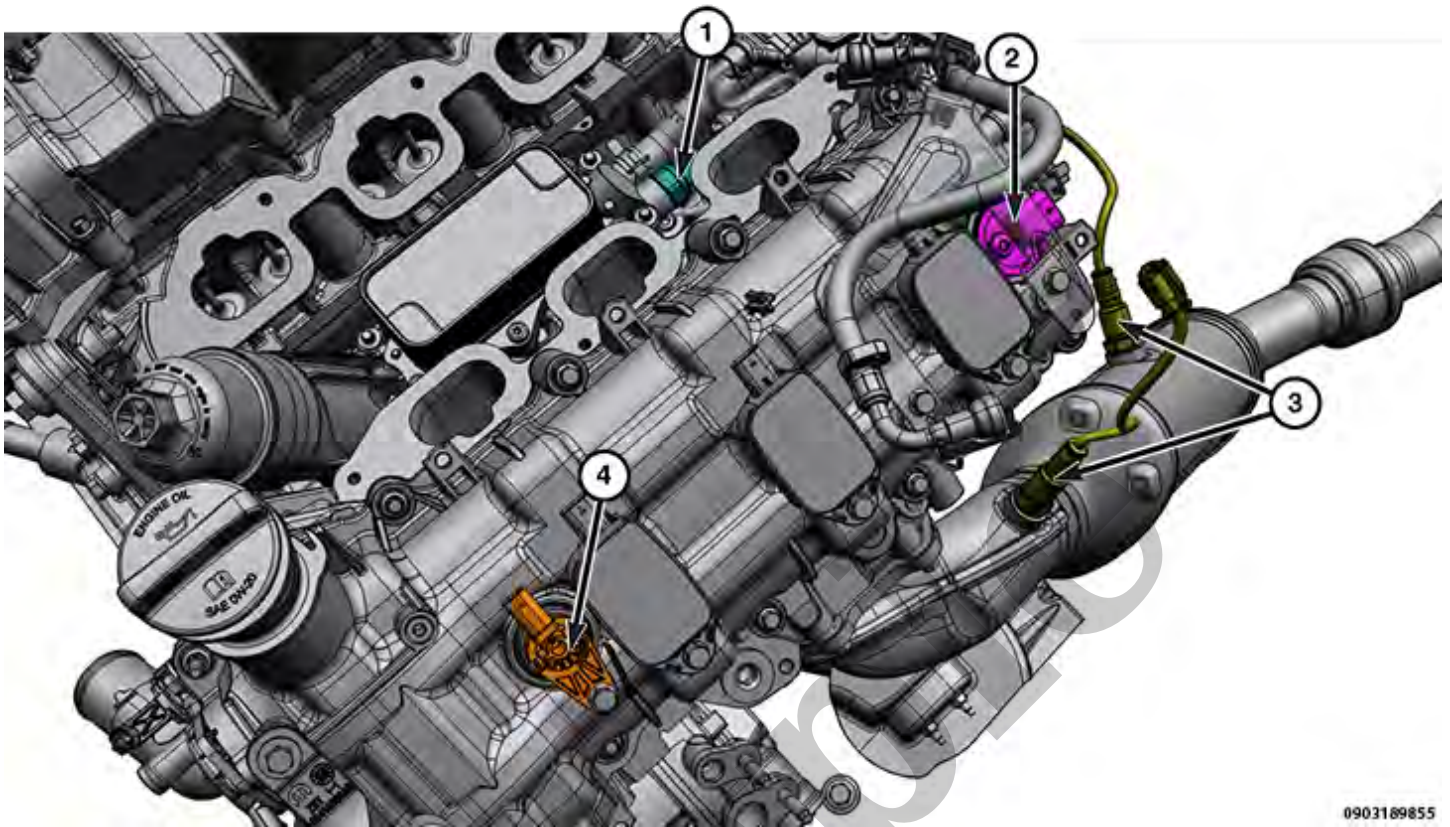
#### REMOVAL

##### WARNING

The exhaust pipes and catalytic converter become very hot during engine operation. Allow the engine to cool before removing the oxygen sensor.

1. Remove the upper and lower cowl extension silencer [\(Refer to Body/Exterior/SILENCER, Cowl Extension/Removal and Installation\)](#)
2. Saturate the nuts with Mopar® Rust Inhibitor. Allow 5 minutes for penetration.

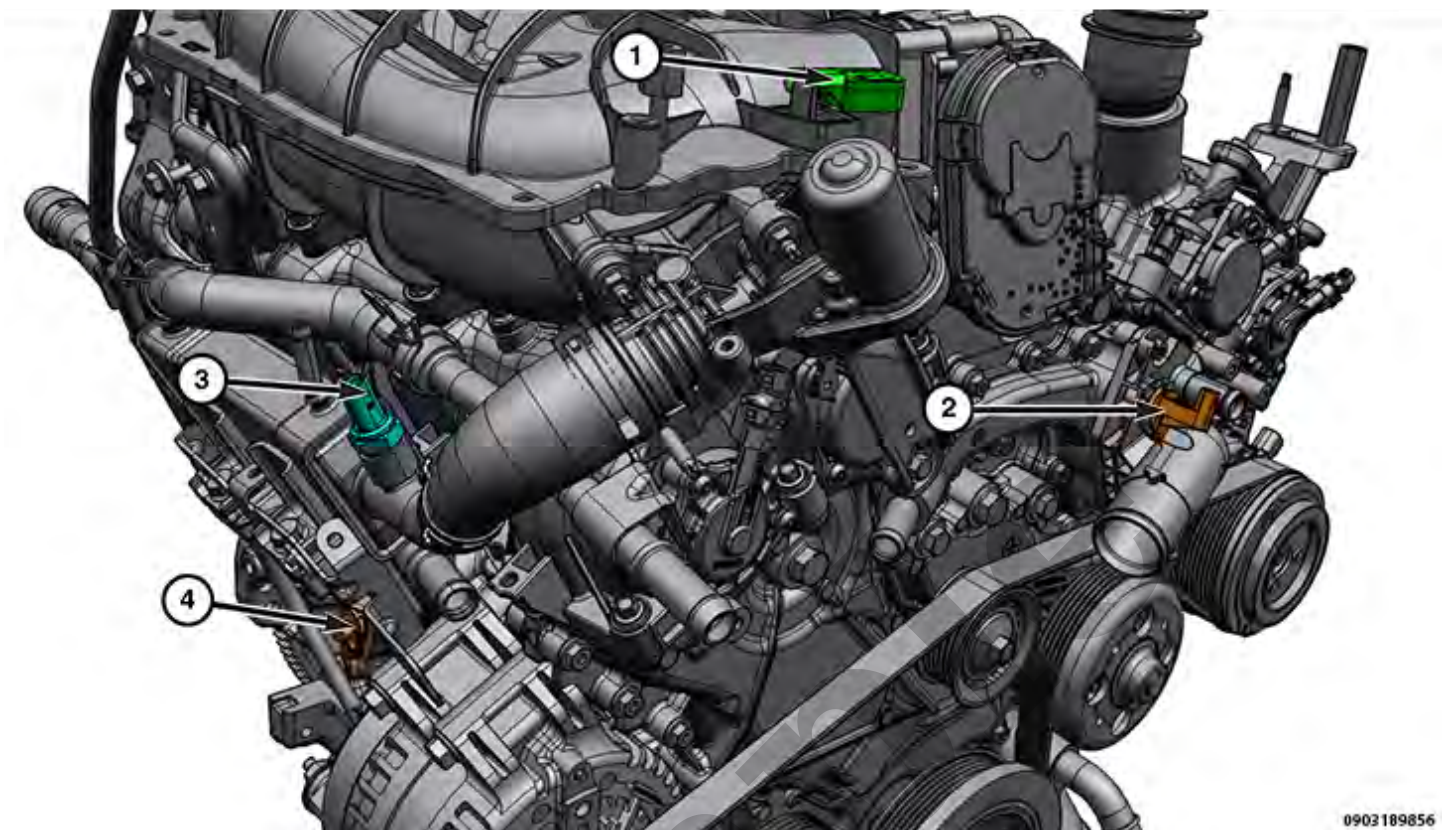




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5. Remove the O2 sensor.

## INSPECTION AND CLEANING

1. Inspect the threads on the exhaust for damage. Clean the exhaust pipe threads using an appropriate tap if necessary.
2. If reinstalling the original oxygen sensor, coat the sensor threads with an anti-seize compound such as Mopar® Nickel Anti-Seize Lubricant or equivalent. New oxygen sensors have compound on the threads and do not require an additional coating. **Do Not add any additional anti-seize compound to the threads of a new oxygen sensor.**

## INSTALLATION

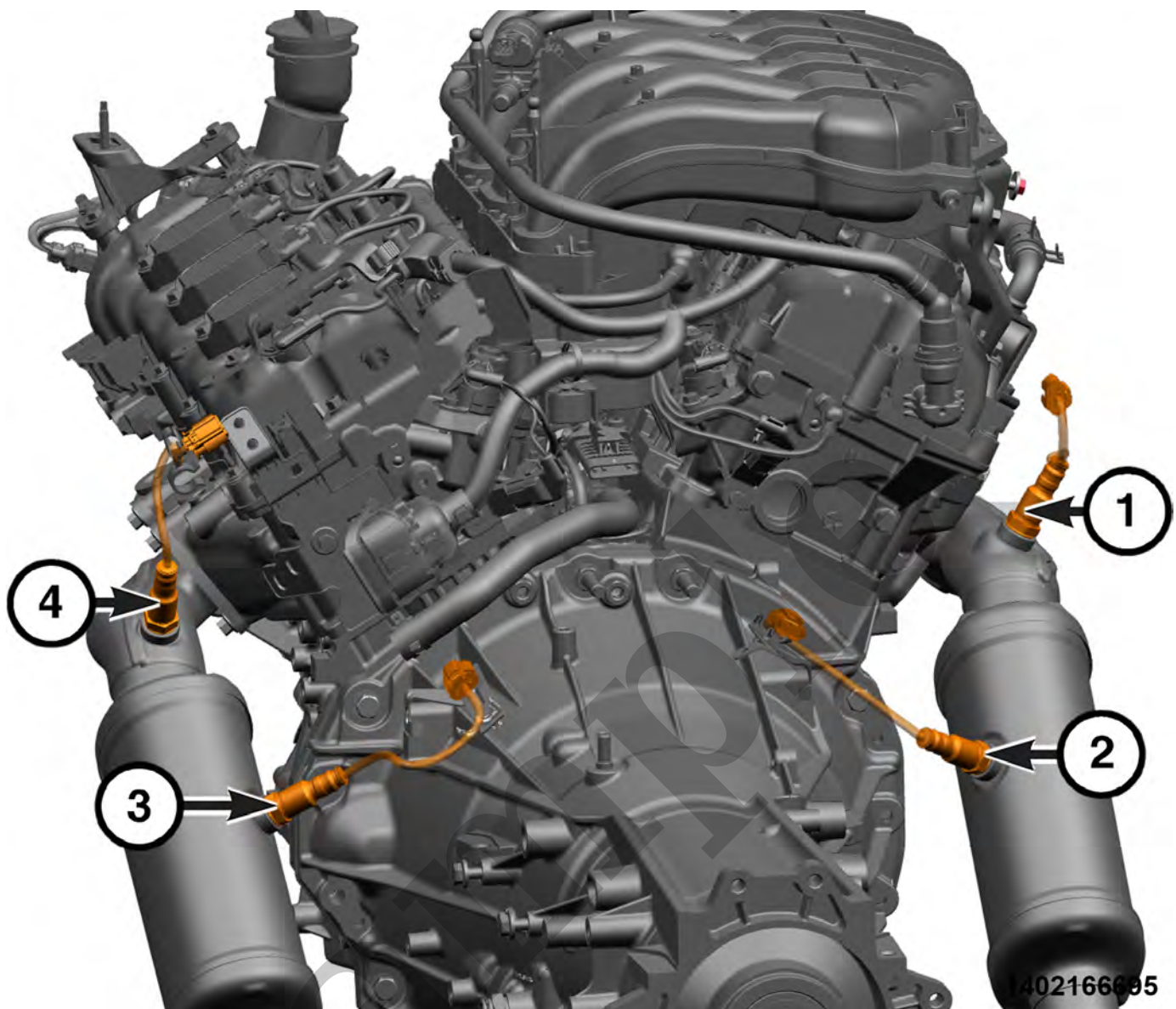
Follow the removal procedure in reverse for general reassembly of the components on the vehicle. The steps listed below are calling out specific procedures that should be followed during installation.

### CAUTION

Never apply any type of grease to the oxygen sensor electrical connector, or attempt any repair of the sensor wiring harness.

- When installing an O2 sensor, it is important to fasten the pigtail and harness connector back to its original location to prevent the pigtail from contacting the exhaust and being damaged.

## TORQUE SPECIFICATIONS - ENGINE SENSORS



1 - Right Upstream Oxygen Sensor (O2 Sensor 1/1)

2 - Right Downstream Oxygen Sensor (O2 Sensor 1/2)

3 - Left Downstream Oxygen Sensor (O2 Sensor 2/2)

4 - Left Upstream Oxygen Sensor (O2 Sensor 2/1)

4. Disconnect the O2 sensor wire harness connector.

#### CAUTION

When disconnecting the oxygen sensor electrical connector, do not pull directly on the wire going into the sensor. The sensor wiring can be damaged resulting in sensor failure.