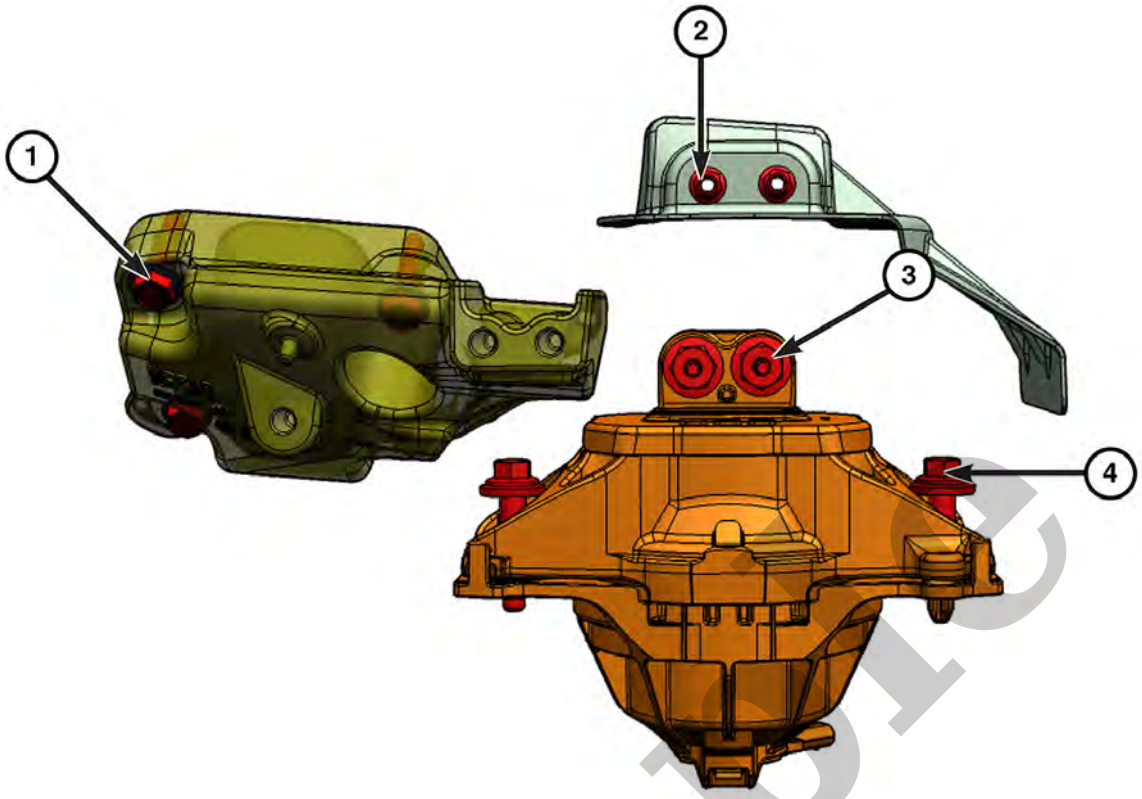
Your Ultimate Source for OEM Repair Manuals

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.

2012 JEEP Wrangler Unlimited OEM Service and Repair Workshop Manual

Go to manual page

LEFT SIDE ENGINE MOUNT



0912190570

CALLOUT	DESCRIPTION	SPECIFICATION	COMMENTS
1	Engine Mount Bracket to Block Bolts	**63 N·m (46 Ft. Lbs.)**	–
2	Engine Mount Heat Shield Nut	**11 N·m (8 Ft. Lbs.)**	–
3	Engine Mount to Bracket Stud Bolts	**63 N·m (46 Ft. Lbs.)**	–
4	Engine Mount to Cradle Bolts	**63 N·m (46 Ft. Lbs.)**	–

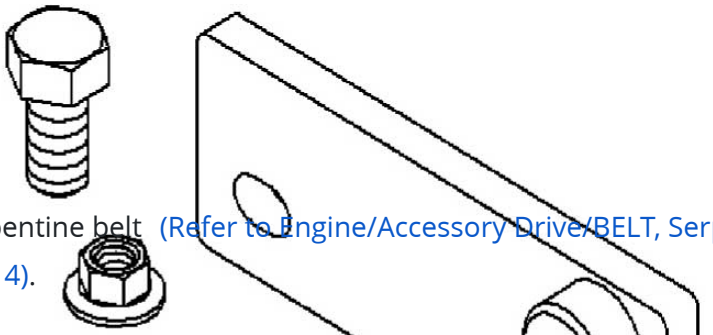
Refer To List:

List 1

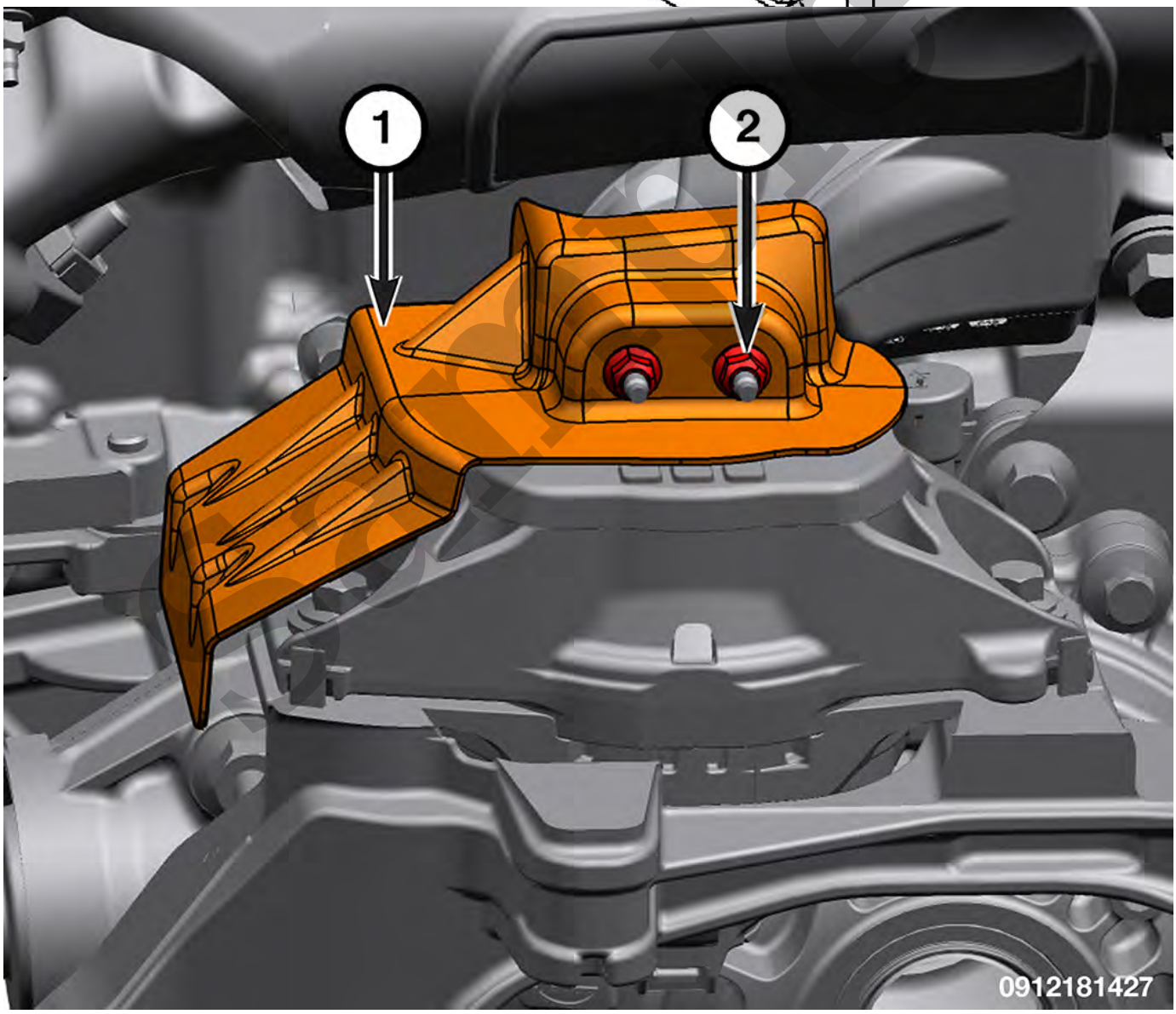
- 13 - Frame and Bumpers / Under Body Protection / PLATE, Skid / Removal and Installation
- 13 - Frame and Bumpers / Under Body Protection / PLATE, Stiffening / Removal and Installation

List 2

- 09 - Engine, 2.0L / Air Intake System / TUBE, Intake Air / Removal and Installation



13. Partially remove the serpentine belt (Refer to Engine/Accessory Drive/BELT, Serpentine/Removal and Installation)(Refer To List 4).
14. Remove the generator bolt and position aside the generator.

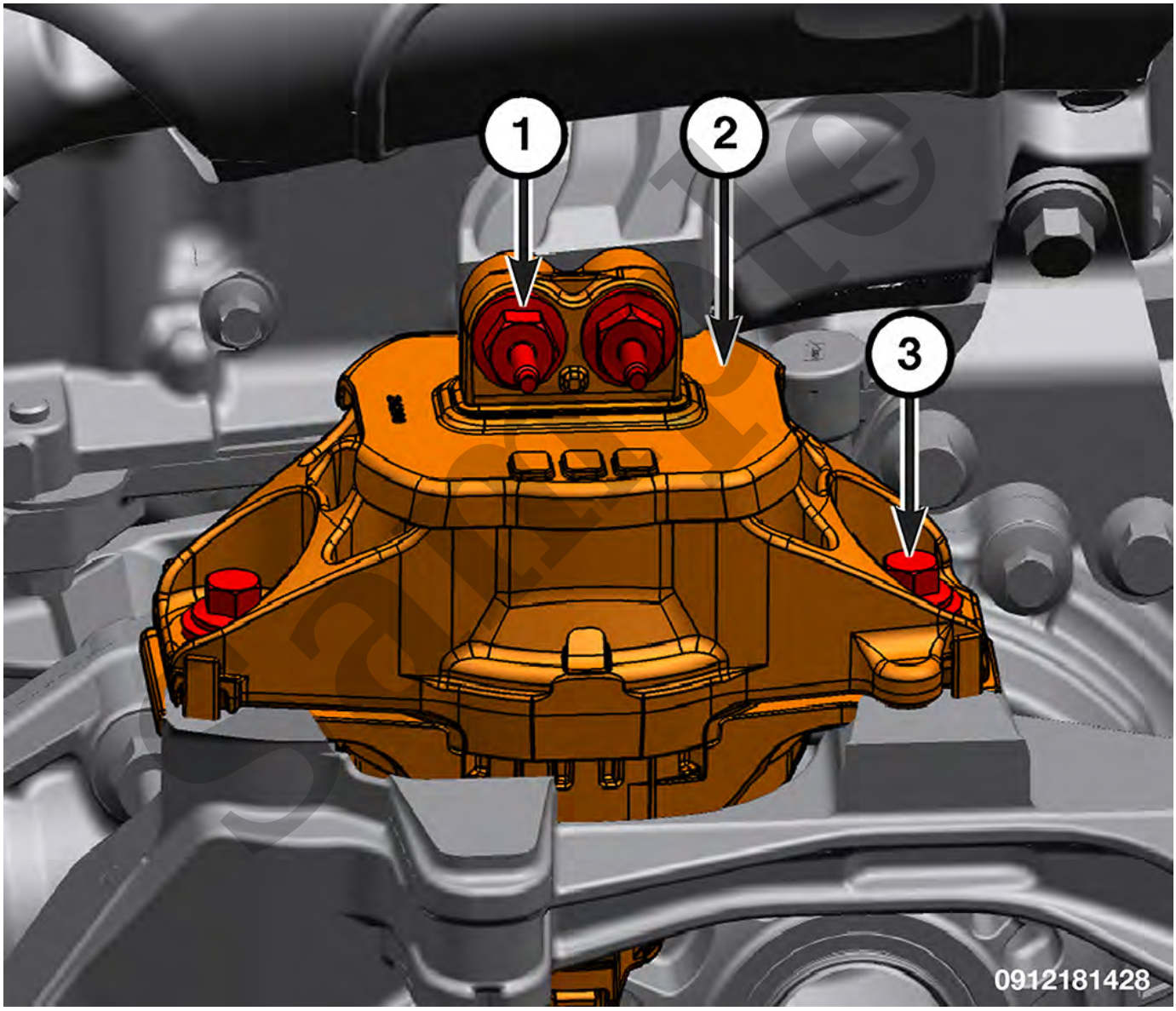


1 - Engine Mount Heat Shield

1 - Engine Mount to Bracket Stud Bolts
2 - Engine Mount
3 - Engine Mount to Cradle Bolts

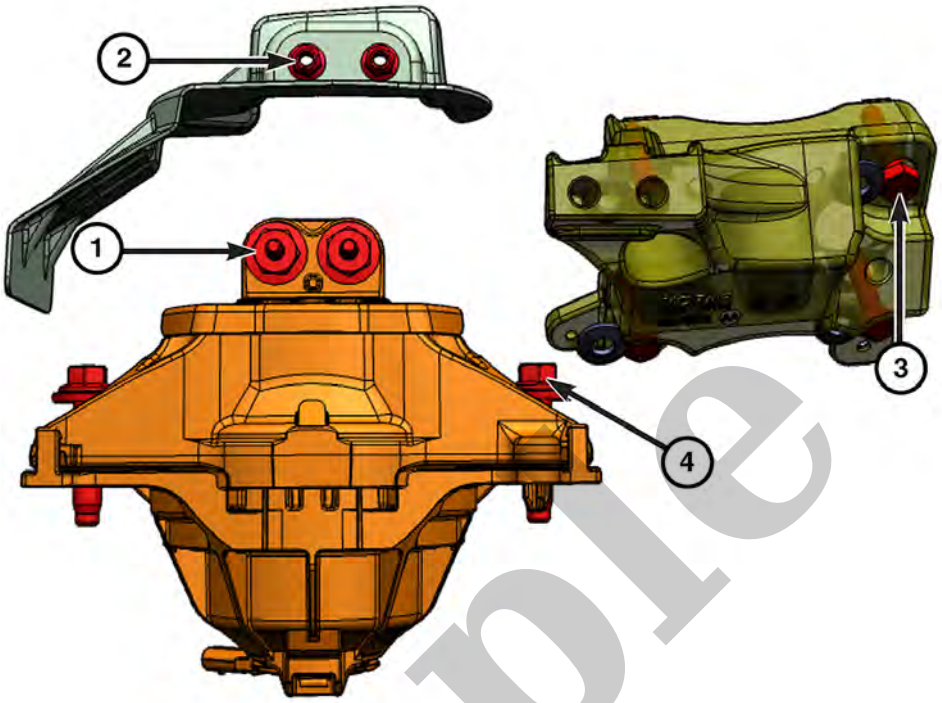
20. Remove the left side engine mount to cradle bolts.

21. Lift up the engine.



1 - Engine Mount to Bracket Bolts
2 - Engine Mount
3 - Engine Mount to Cradle Bolts

RIGHT SIDE ENGINE MOUNT



0912190571

CALLOUT	DESCRIPTION	SPECIFICATION	COMMENTS
1	Engine Mount to Bracket Stud Bolts	**63 N·m (46 Ft. Lbs.)**	–
2	Engine Mount Heat Shield Nut	**11 N·m (8 Ft. Lbs.)**	–
3	Engine Mount Bracket to Block Bolts	**63 N·m (46 Ft. Lbs.)**	–
4	Engine Mount to Cradle Bolts	**63 N·m (46 Ft. Lbs.)**	–

LEFT SIDE ENGINE MOUNT

4. Check condition of sensor O-ring seal.

INSTALLATION

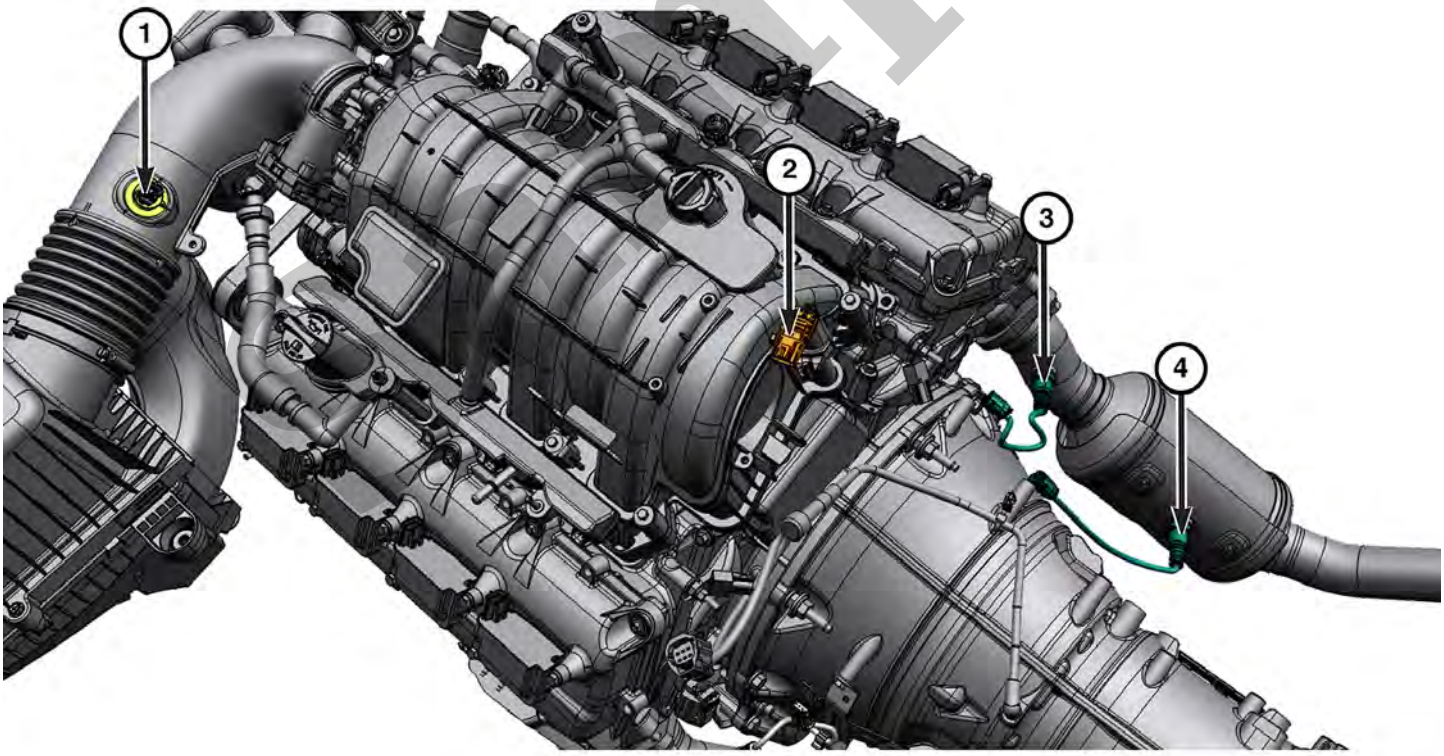
Follow the removal procedure in reverse for general reassembly of the components on the vehicle. The steps listed below are calling out specific procedures that should be followed during installation.

- Verify the CMP sensor machined hole in the timing cover is clear of debris.
- Before tightening the CMP sensor bolt, be sure the sensor is completely flush to the timing cover. If the sensor is not flush, damage to the sensor mounting tang may result.
- Install the CMP sensor bolt and tighten to the specified torque.

NOTE

The Cam/Crank Variation Relearn procedure must be performed using the scan tool anytime there has been a repair/replacement made to a powertrain system, for example: flywheel, valvetrain, camshaft and/or crankshaft sensors or components.

TORQUE SPECIFICATIONS - ENGINE SENSORS



0903189442

CALLOUT	DESCRIPTION	SPECIFICATION	COMMENTS

1. Check condition of CKP sensor O-ring. Replace if cut or torn.
2. Clean the machined hole in engine block.

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.

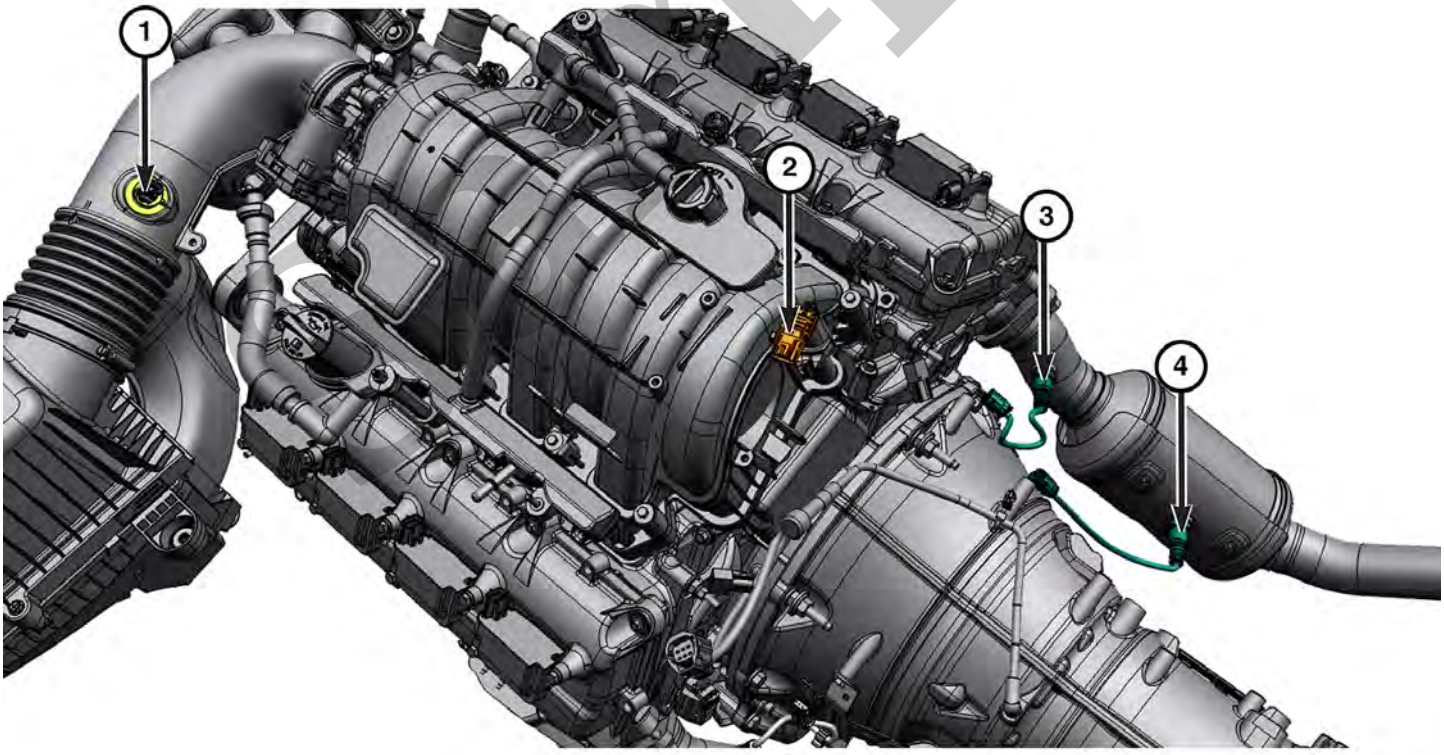
- Lubricate the CKP sensor O-ring with clean engine oil before installing the sensor in the engine block.

  CAUTION

  Before tightening the CKP sensor mounting bolt, be sure the sensor is completely flush to the cylinder block. If the CKP sensor is not flush, damage to the sensor mounting tang may result.

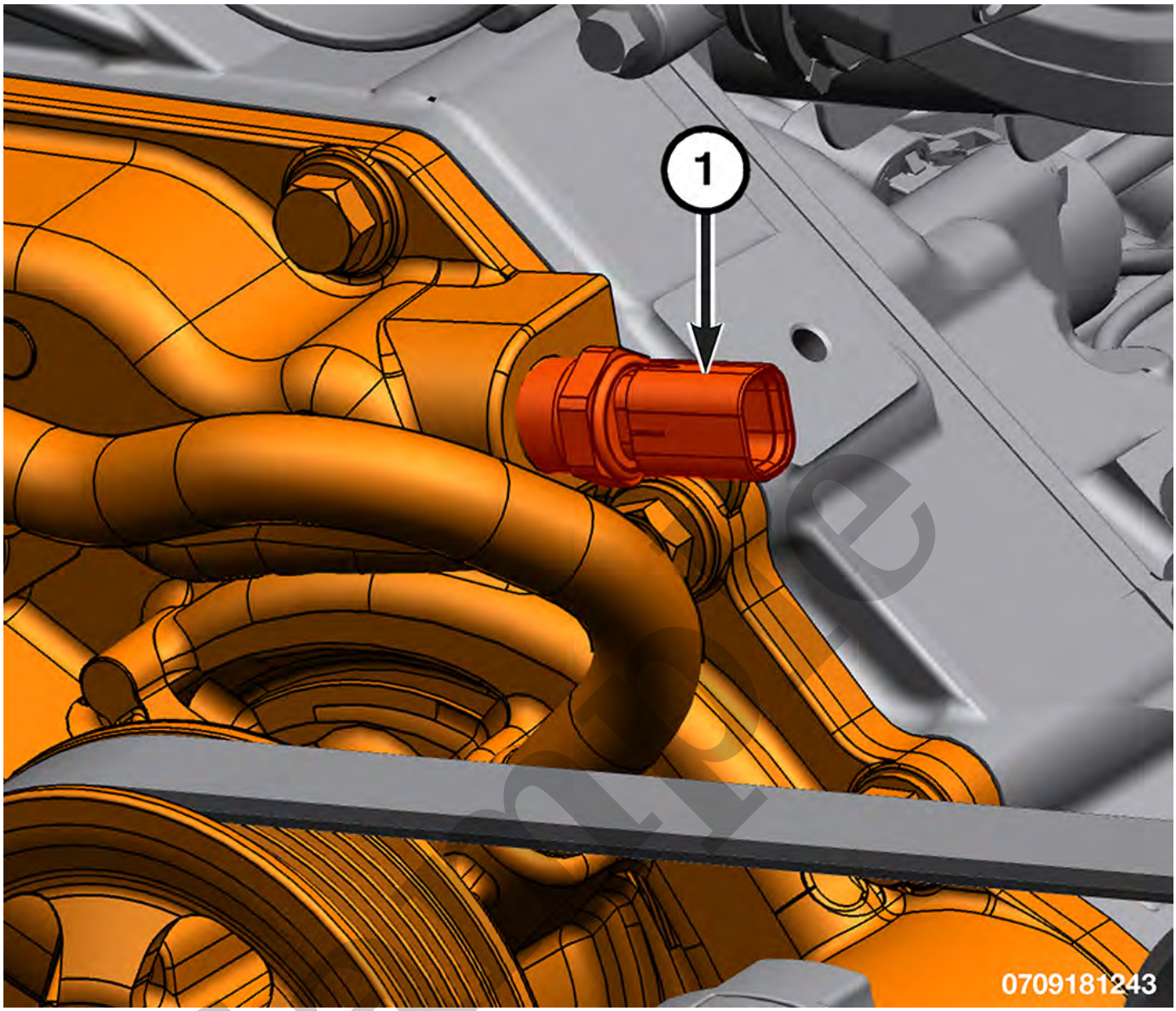
- **The Cam/Crank Variation Relearn procedure must be performed using the scan tool anytime there has been a repair/replacement made to a powertrain system, for example: flywheel, valvetrain, camshaft and/or crankshaft sensors or components.**

TORQUE SPECIFICATIONS - ENGINE SENSORS



0903189442

CALLOUT	DESCRIPTION	SPECIFICATION	COMMENTS



1 - ECT Sensor

5. Remove the ECT sensor from the water pump.

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.

- Apply thread sealant to the Engine Coolant Temperature (ECT) sensor threads.

TORQUE SPECIFICATIONS - ENGINE SENSORS

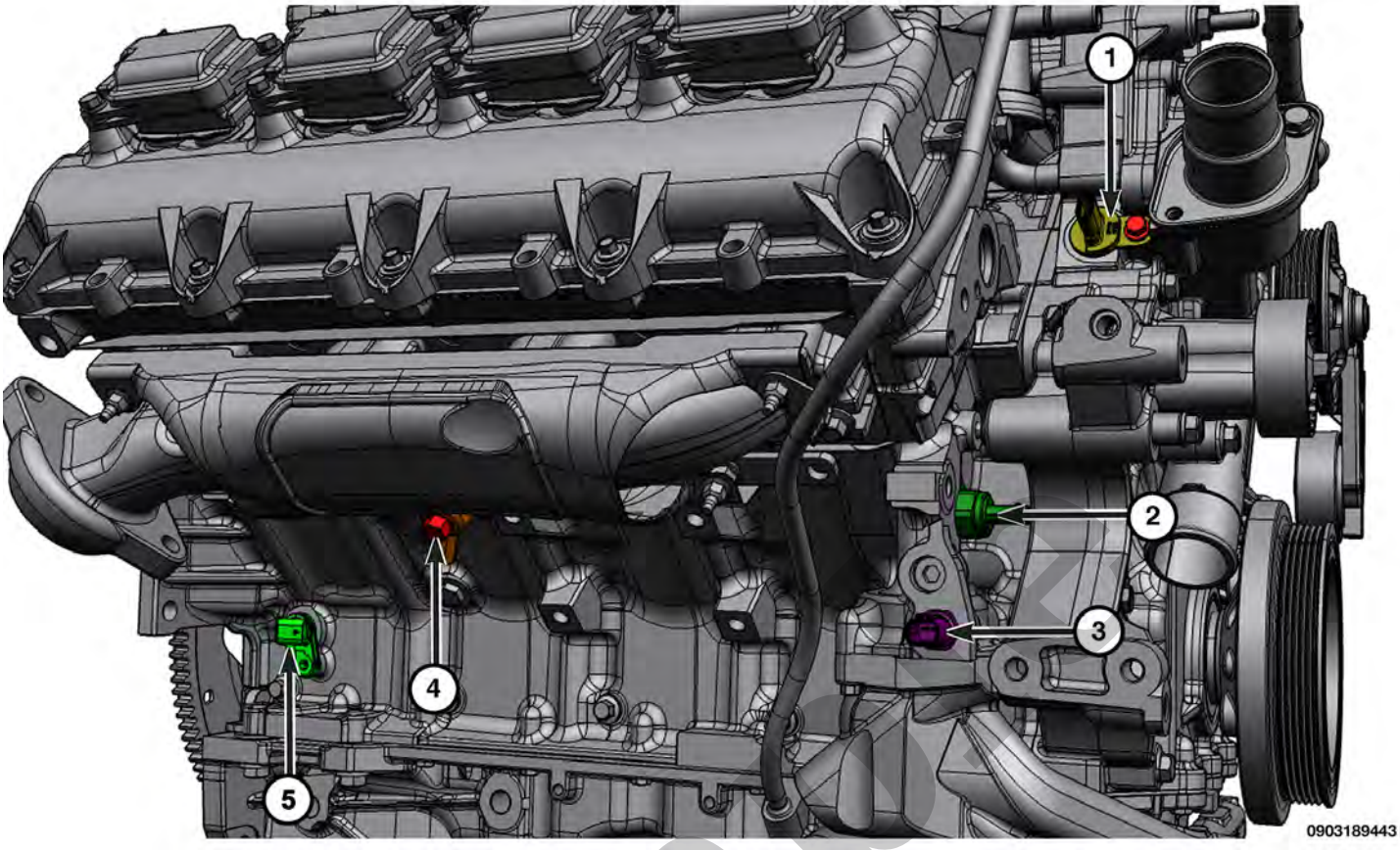
YOUR CURRENT VEHICLE

Engine Oil Pressure (EOP) Sensor

ENGINE OIL PRESSURE (EOP) SENSOR

C

1. Disconnect and isolate the negative battery cable(s) (Refer to Electrical/Battery System/Standard Procedure).
2. Remove the generator (Refer to Electrical/Charging/GENERATOR/Removal and Installation).



CALLOUT	DESCRIPTION	SPECIFICATION	COMMENTS
1	Camshaft Position (CMP) Sensor	**9 N·m (80 In. Lbs.)**	–
2	Engine Oil Temperature Sensor	**50 N·m (37 Ft. Lbs.)**	–
3	Engine Oil Pressure / Temperature Sensor	**15 N·m (11 Ft. Lbs.)**	–
4	Knock Sensor	**28 N·m (21 Ft. Lbs.)**	–
5	Crankshaft Position (CKP) Sensor	**12 N·m (9 Ft. Lbs.)**	–
–	Engine Coolant Temperature Sensor	**31 N·m (23 Ft. Lbs.)**	–