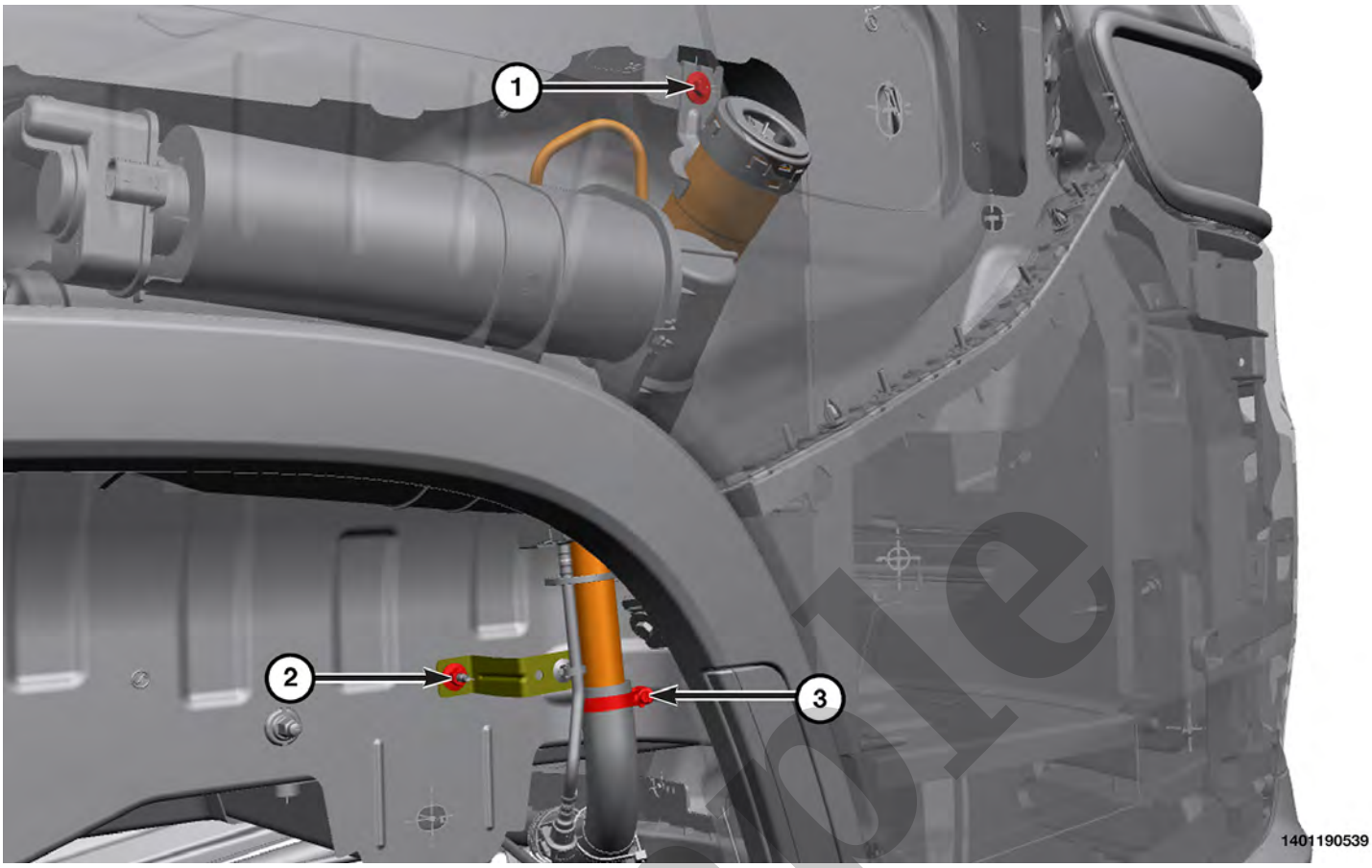
Your Ultimate Source for OEM Repair Manuals

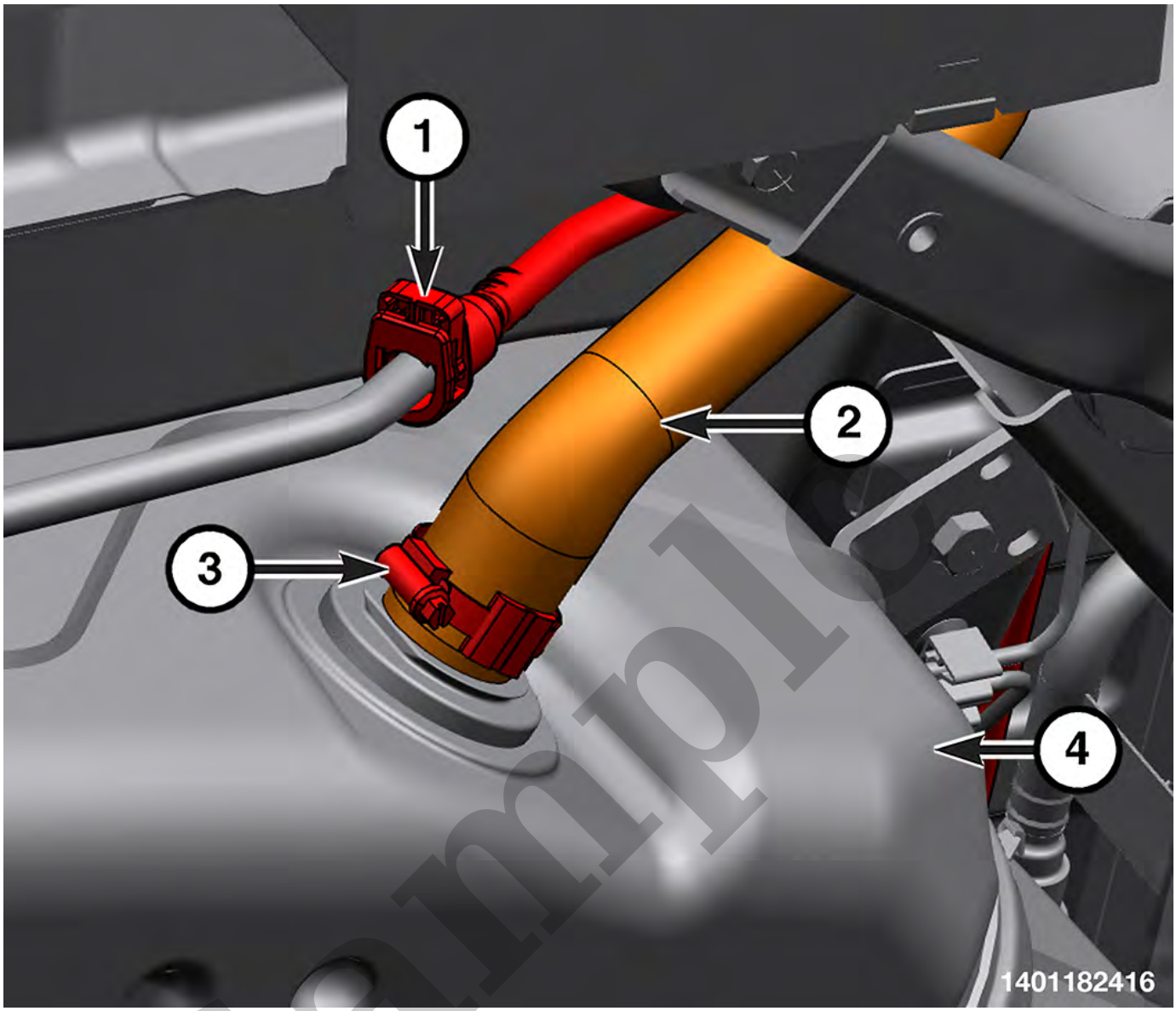
FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2010 JEEP Wrangler Unlimited OEM Service and Repair Workshop Manual

Go to manual page

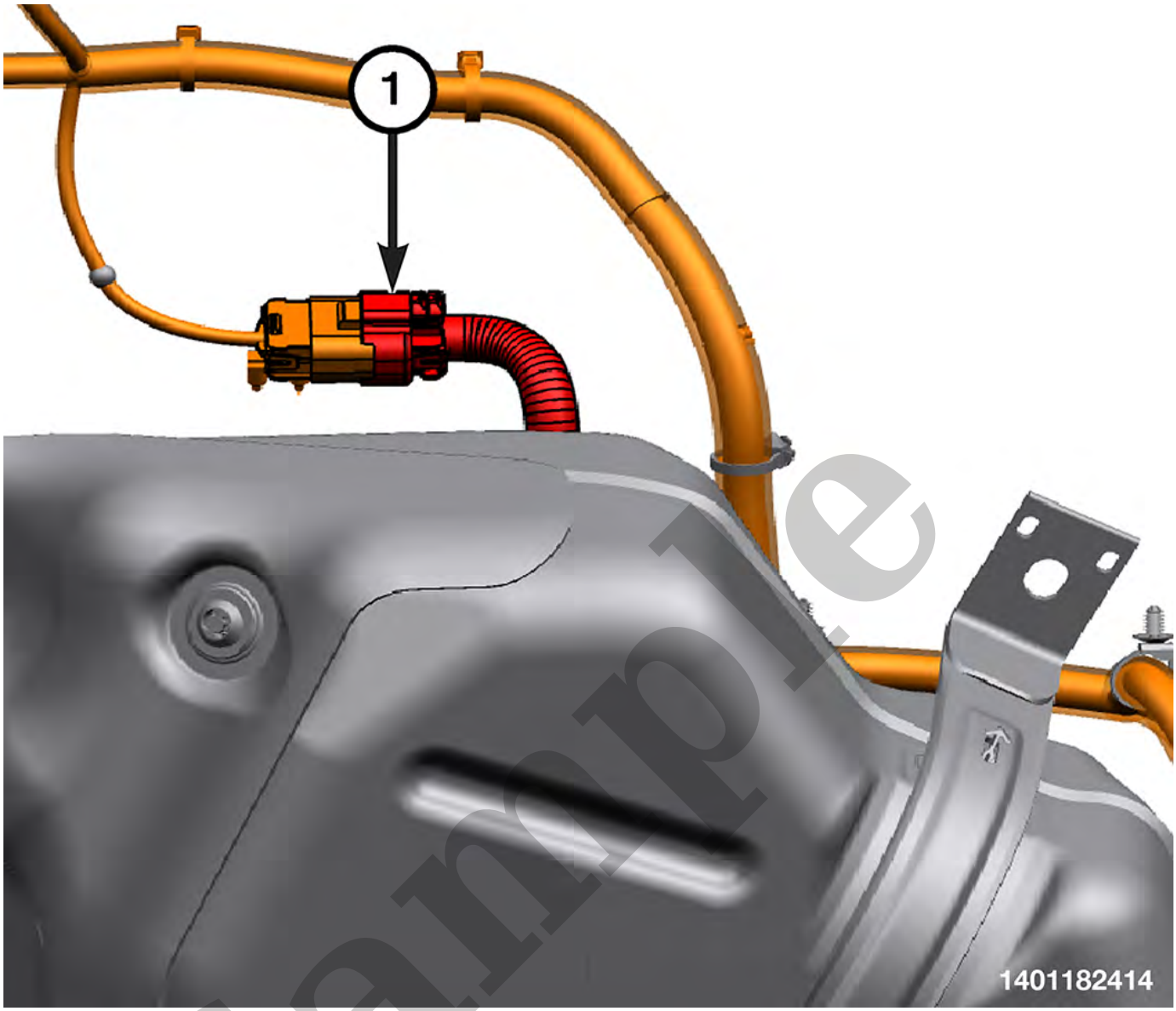


CALLOUT	DESCRIPTION	SPECIFICATION	COMMENTS
1	Fuel Filler Neck to Body Bolt	**9 N·m (80 In. Lbs.)**	
2	Fuel Filler Tube to Body Nut	**9 N·m (80 In. Lbs.)**	
3	Fuel Filler Pipe to Filler Clamp	**3 N·m (30 In. Lbs.)**	–



1 - Fuel Vapor Line Quick Connect Fitting
2 - Fuel Tank Filler Hose
3 - Fuel Tank Filler Hose Clamp
4 - Fuel Tank

6. Disconnect the fuel vapor line quick connect fitting (Refer to Engine/Fuel System/Standard Procedure) (Refer To List 1).
7. Loosen the fuel tank filler tube hose clamp and disconnect the fuel tank filler tube hose from the fuel tank.



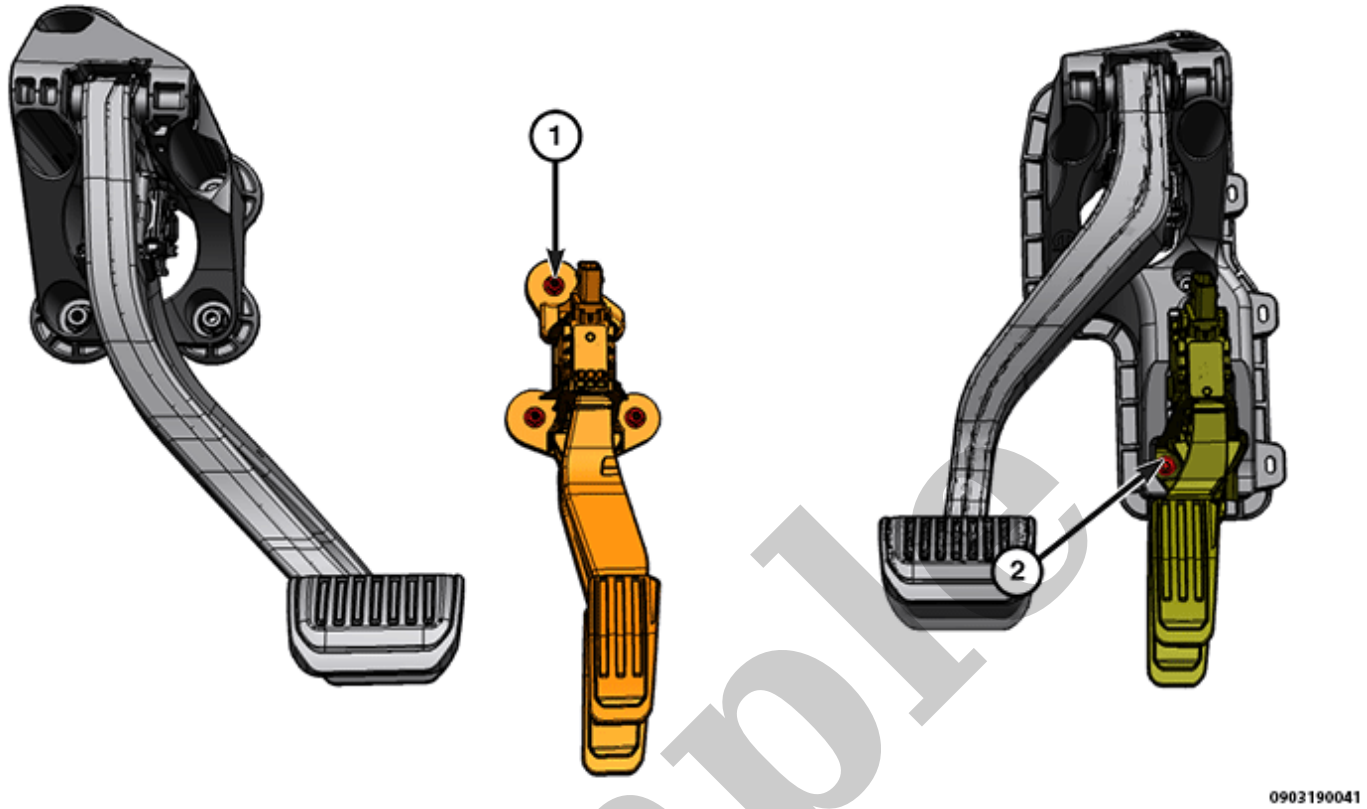
1 - Fuel Pump Module/Level Sensor Wire Harness Connector

15. Disconnect the fuel pump module/level sensor wire harness connector.
16. Lower the hydraulic jack and remove the fuel tank.
17. If replacing the fuel tank, remove the heat shield push pin retainers and remove the heat shield.
18. If replacing the fuel tank only, remove both fuel pump modules from the fuel tank (Refer to Engine/Fuel System/PUMP, Fuel/Removal and Installation)(Refer To List 2).

INSTALLATION

Follow the removal procedure in reverse for general reassembly of the components on the vehicle.

TORQUE SPECIFICATIONS - FUEL SYSTEM



CALLOUT	DESCRIPTION	SPECIFICATION	COMMENTS
1	Accelerator Pedal to Bulkhead Nuts	**9 N·m (80 In. Lbs.)**	–
2	Accelerator Pedal to Bracket Bolt (RHD)	**5 N·m (44 In. Lbs.)**	–

Refer To List:

List 1

- 09 - Engine, 2.0L / Fuel System / Standard Procedure
- 09 - Engine, 3.6L / Fuel System / Standard Procedure
- 09 - Engine, 5.7L / Fuel System / Standard Procedure

List 2

- 09 - Engine, 2.0L / Fuel System / ASSEMBLY, Fuel Pump / Removal and Installation
- 09 - Engine, 3.6L / Fuel System / ASSEMBLY, Fuel Pump / Removal and Installation
- 09 - Engine, 5.7L / Fuel System / ASSEMBLY, Fuel Pump / Removal and Installation

Ignition Coil – Left Cylinder Head

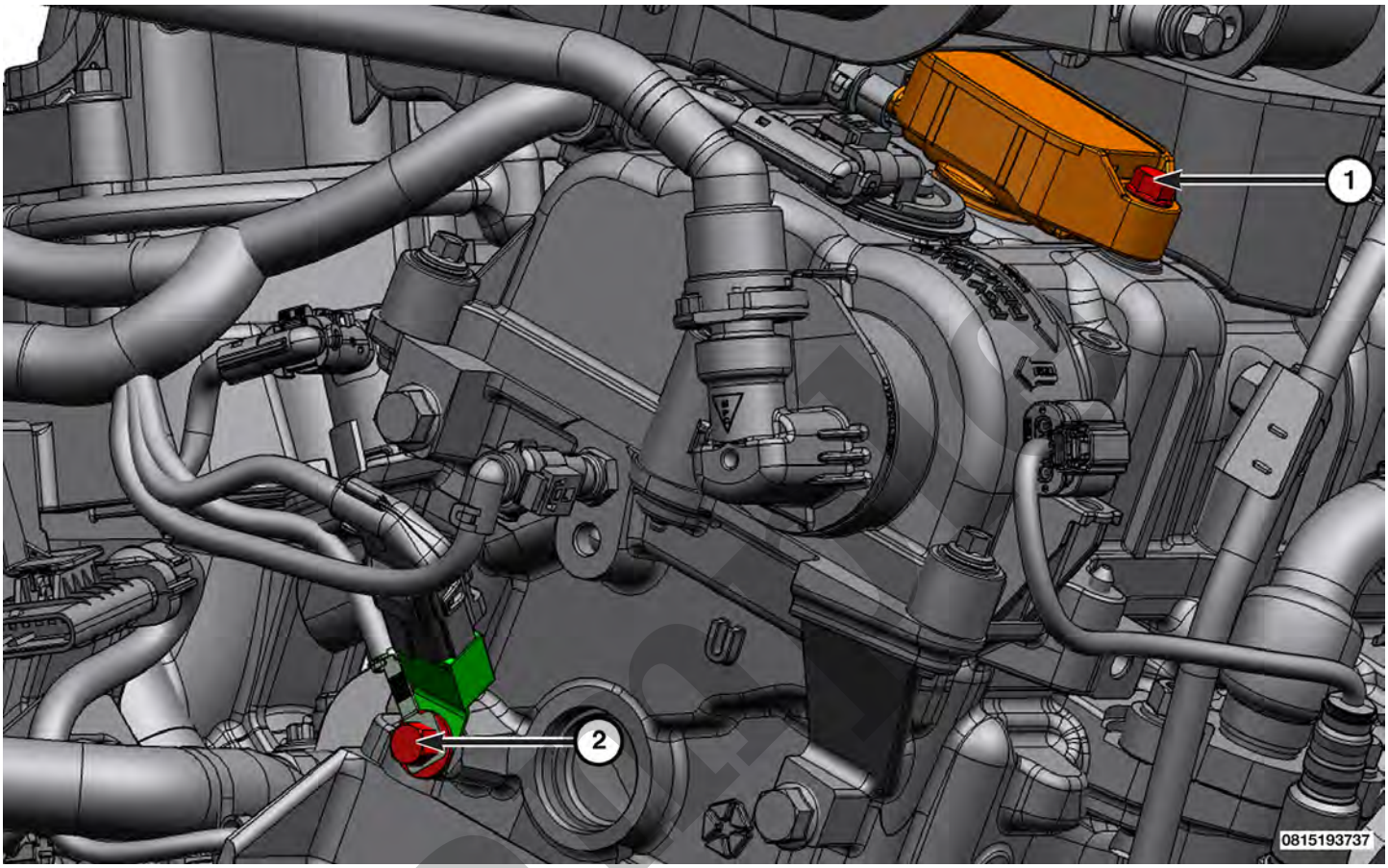
IGNITION COIL – LEFT CYLINDER HEAD

REMOVAL

1. Disconnect and isolate the negative battery cable(s) (Refer to Electrical/Battery System/Standard Procedure).
2. Remove the engine cover.
3. Remove the air cleaner resonator (Refer to 09 - Engine/Air Intake System/RESONATOR, Air Cleaner/Removal and Installation).

Do not apply a silicone based grease such as Mopar® Dielectric Grease to the ignition coil rubber boot. The silicone based grease will absorb into the boot causing it to stick and tear.

TORQUE SPECIFICATIONS - IGNITION CONTROL - 3.6L



CALLOUT	DESCRIPTION	SPECIFICATION	COMMENTS
1	Ignition Coil to Cylinder Head Cover	**8 N·m (71In. Lbs.)**	–
2	Ignition Capacitor to Cylinder Head	**10 N·m (89 In. Lbs.)**	–
–	Spark Plugs	**20 N·m (15Ft. Lbs.)**	–

- 09 - Engine, 2.0L / Air Intake System / MANIFOLD, Intake / Removal and Installation
- 09 - Engine, 3.6L / Air Intake System / MANIFOLD, Intake / Removal and Installation
- 09 - Engine, 5.7L / Air Intake System / MANIFOLD, Intake / Removal and Installation

NOTE

Over or under tightening the sensor mounting bolts will affect knock sensor performance, possibly causing improper spark control. Always use the specified torque when installing the knock sensors.

When the knock sensor detects a knock in one of the cylinders on the corresponding bank, it sends an input signal to the PCM. In response, the PCM retards ignition timing for all cylinders by a scheduled amount.

Knock sensors contain a piezoelectric crystal which constantly vibrates and sends an input voltage (signal) to the PCM while the engine operates. As the intensity of the crystal's vibration increases, the knock sensor output voltage also increases.

The voltage signal produced by the knock sensor increases with the amplitude of vibration. The PCM receives the knock sensor voltage signal as an input. If the signal rises above a predetermined level, the PCM will store that value in memory and retard ignition timing to reduce engine knock. If the knock sensor voltage exceeds a preset value, the PCM retards ignition timing for all cylinders. It is not a selective cylinder retard.

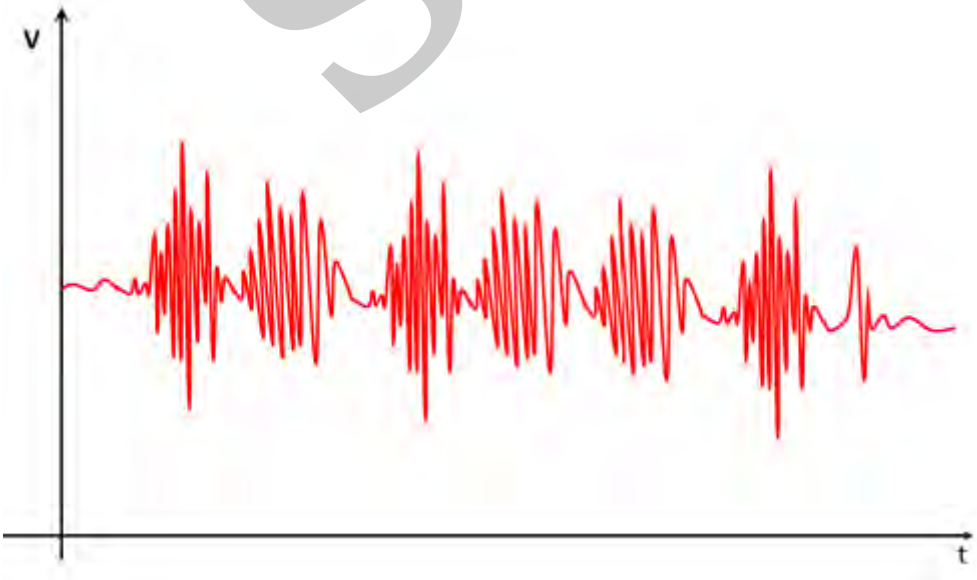
The PCM ignores knock sensor input during engine idle conditions. Once the engine speed exceeds a specified value, knock retard is allowed.

Knock retard uses its own short term and long term memory program.

Long term memory stores previous detonation information in its battery-backed Random Access Memory (RAM). The maximum authority that long term memory has over timing retard can be calibrated.

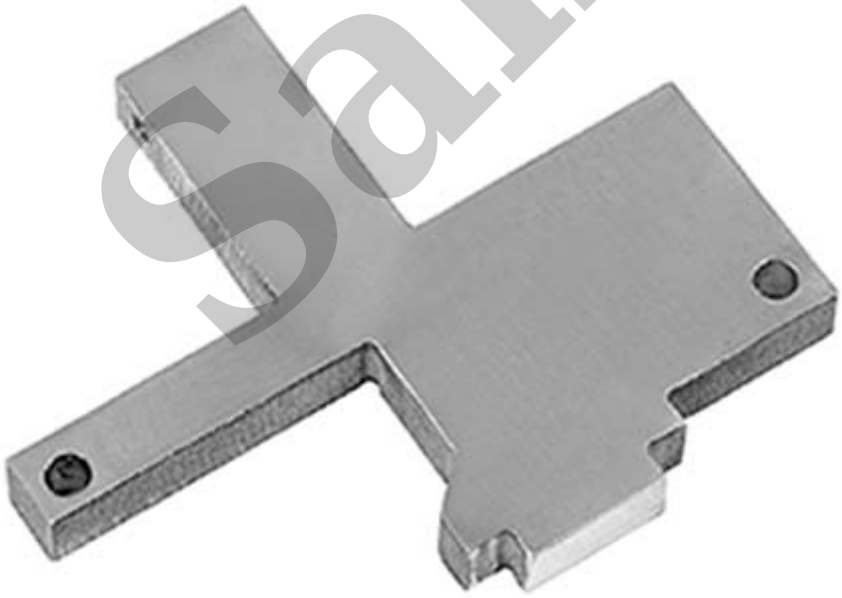
Short term memory is allowed to retard timing up to a preset amount under all operating conditions when the engine RPM is above the specified value (except at Wide Open Throttle (WOT)). The PCM, using short term memory, can respond quickly to retard timing when engine knock is detected. Short term memory is lost any time the ignition key is turned off.

Knock Sensor Signal



or

Check Tool, Tone Wheel Left



check the alignment of the CMP sensor tone wheel.