

Your Ultimate Source for OEM Repair Manuals

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2010 JEEP Wrangler Rubicon OEM Service and Repair Workshop Manual

[Go to manual page](#)

Fuel Rail

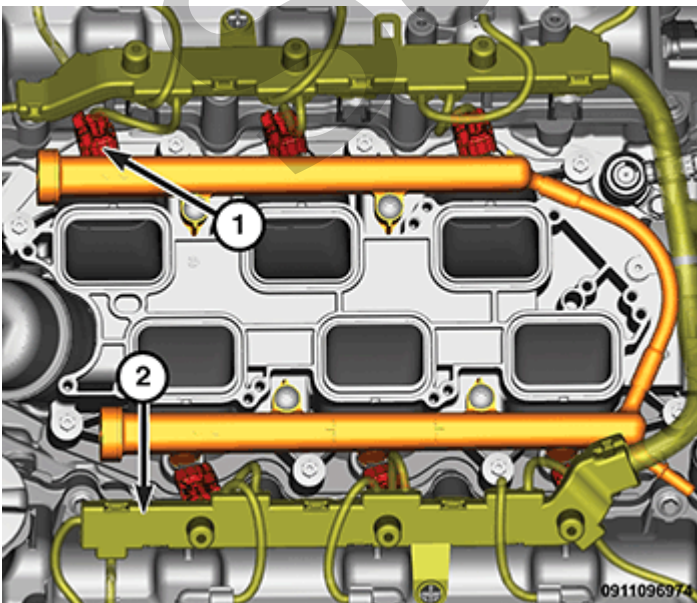
FUEL RAIL

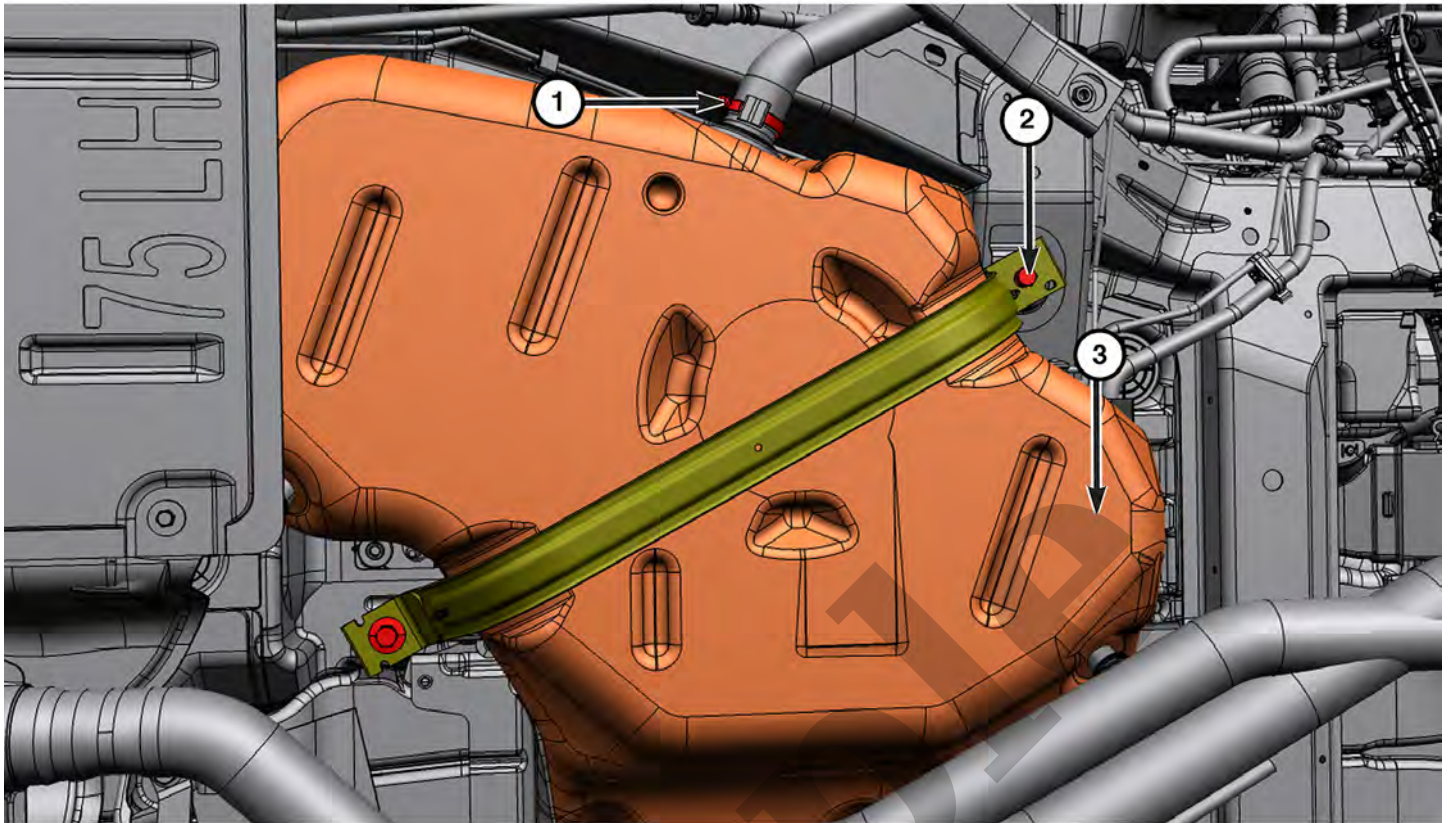
REMOVAL

WARNING

The fuel system is under constant pressure even with engine off. Before servicing the fuel rail, fuel system pressure must be released.

1. Release fuel system pressure ([Refer to Engine/Fuel System/Standard Procedure](#))([Refer To List 1](#)).
2. Disconnect and isolate the negative battery cable(s) ([Refer to Electrical/Battery System/Standard Procedure](#)).
3. Remove the upper intake manifold ([Refer to Engine/Air Intake System/MANIFOLD, Intake/Removal and Installation](#))([Refer To List 2](#)).
4. Remove the insulator from the cylinder head cover.





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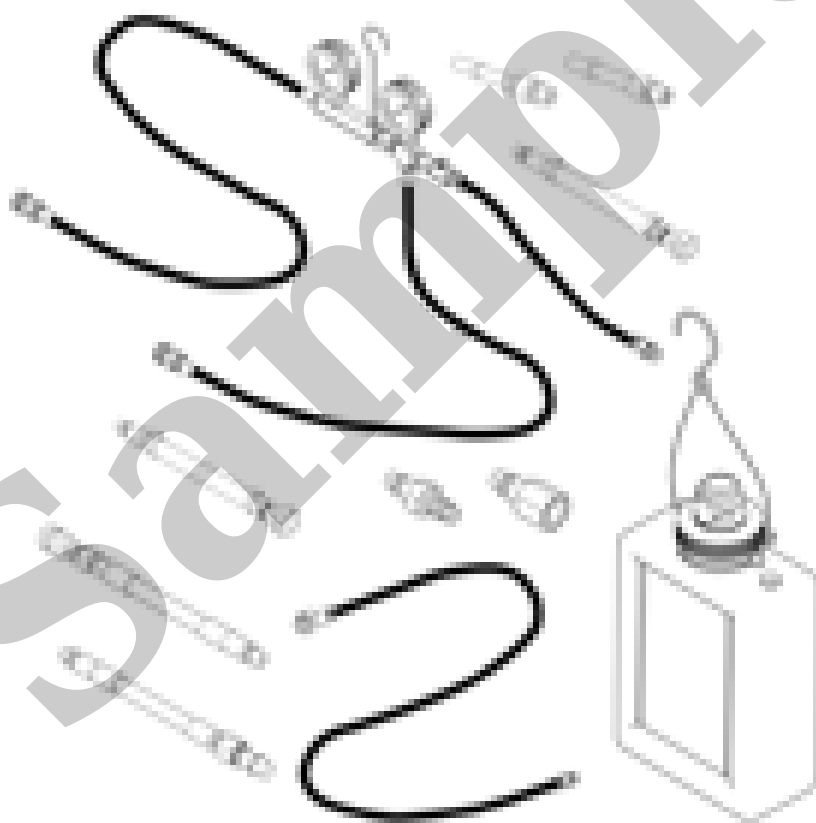
CALLOUT	DESCRIPTION	SPECIFICATION	COMMENTS
1	Fuel Filler Tube Clamp	3 N·m (30 In. Lbs.)	-
2	Fuel Tank Mounting Straps	55 N·m (41 Ft. Lbs.)	-

YOUR CURRENT VEHICLE

Special Tools

SPECIAL TOOLS

Decay Tool, Fuel



SAE Fuel Pump Lock Ring Wrench

Activation of the fuel pump module may time out and need to be restarted several times to completely drain the fuel tank.

4. Using a diagnostic scan tool, activate the fuel pump module until the fuel tank has been evacuated.

Alternative Fuel Draining Procedure

NOTE

If the electric fuel pump is not operating, the fuel tank must be removed and drained through the fuel pump module opening of the fuel tank.

1. Disconnect and isolate the negative battery cable.
2. Raise and support the vehicle ([Refer to Vehicle Quick Reference/Hoisting - Standard Procedure](#)).
3. Remove the fuel pump module ([Refer to Engine/Fuel System/PUMP, Fuel/Removal and Installation](#))([Refer To List 2](#)).
4. Position a 3/8" hose into the fuel pump module opening of the fuel tank.
5. Attach the opposite end of this hose to an OSHA approved fuel storage tank such as the JohnDow Gas Caddy 320-FC-P30-A or equivalent.
6. Using the gas caddy, evacuate the fuel tank.

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](#)

- Two Tab Type Fitting
- Plastic Retainer Ring Type Fitting
- Latch Clip Type 1 Fitting
- Latch Clip Type 2 Fitting
- Two Button Type Fitting
- Wing Type Fitting

DISCONNECTING

WARNING

On vehicles equipped with gasoline engines, the fuel system is under a constant pressure (even with engine off). Before servicing any fuel system hose, fitting or line, fuel system pressure must be released.

For the fuel system pressure release procedure, [\(Refer to Engine/Fuel System/Standard Procedure\)\(Refer To List 1\)](#).

CAUTION

Before separating a Quick-Connect fitting, pay attention to what type of fitting is being used. This will prevent unnecessary fitting or fitting latch breakage.

CAUTION

The interior components (O-rings, clips) of quick-connect fittings are not serviced separately, but new plastic spacers and latches are available for some types. If service parts are not available, do not attempt to repair the damaged fitting or fuel line (tube). If repair is necessary, replace the complete fuel line (tube) assembly.

Redundant Latch Single Button Type Fitting:

1 - Quick-Connect Fitting

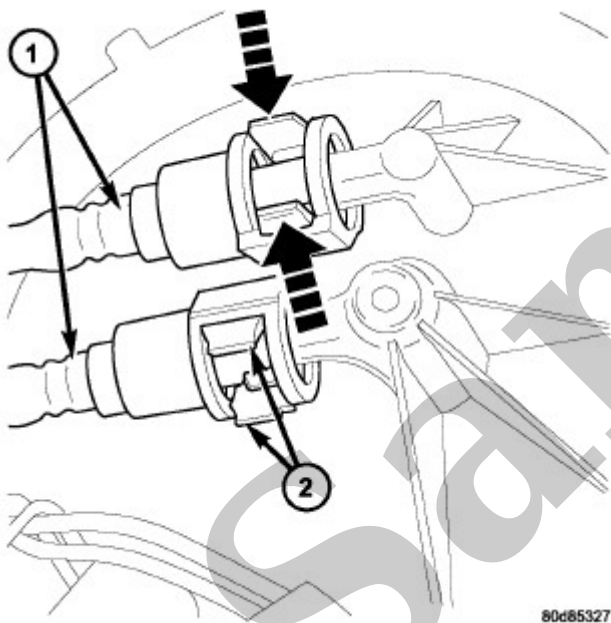
2 - Two Push Buttons

This type of quick-connect fitting is equipped with two push buttons that releases two internal latches located in the quick-connect fitting. Special tools are not required for removal.

1. Press on both push buttons with your thumb, release the internal latches.
2. While holding the two push buttons simultaneously, remove the quick-connect fitting from the fuel system component.

Pinch Type Fitting

PINCH TYPE QUICK-CONNECT FITTING



1 - Quick-Connect Fitting

2 - Two Finger Tabs

This type of quick-connect fitting is equipped with two finger tabs. Special tools are not required for removal.

1. Pinch both tabs together and release the quick-connect fitting.
2. Remove the quick-connect fitting from the fuel system component.

This type of fitting can be identified by the use of a round plastic retainer ring usually black in color. Special tools are not required for removal.

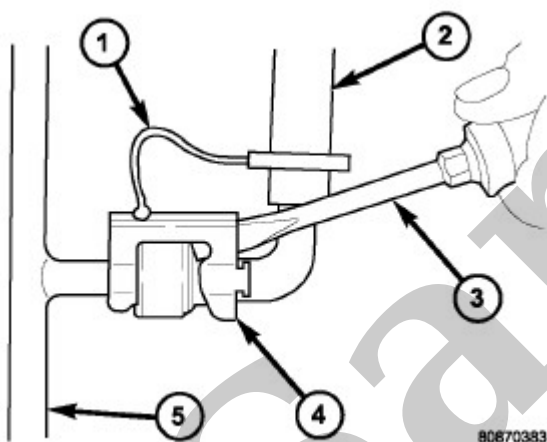
NOTE

The round plastic retainer ring must be pressed squarely into the quick-connect fitting body. If this retainer is cocked during removal it will be difficult to disconnect the quick-connect fitting. Use an open-end wrench on the shoulder of the plastic retainer ring to aid in disconnection.

1. Firmly push the quick-connect fitting towards the component being serviced while firmly pushing the round plastic retainer ring into the quick-connect fitting. With the round plastic ring depressed, remove the quick-connect fitting from the fuel system component.
2. After removal the plastic retainer ring will remain with the quick-connect fitting.

Latch Clip Type 1 Fitting

Latch Clip-Type 1



1 - Latch Clip Tether

2 - Fuel Line

3 - Screwdriver

4 - Latch Clip

5 - Fuel System Component

1. Using two fingers, press both wings and release the locking tabs.

NOTE

After removal the locking tabs will remain with the quick-connect fitting.

2. While holding the wings, remove the quick-connect fitting from the fuel system component.

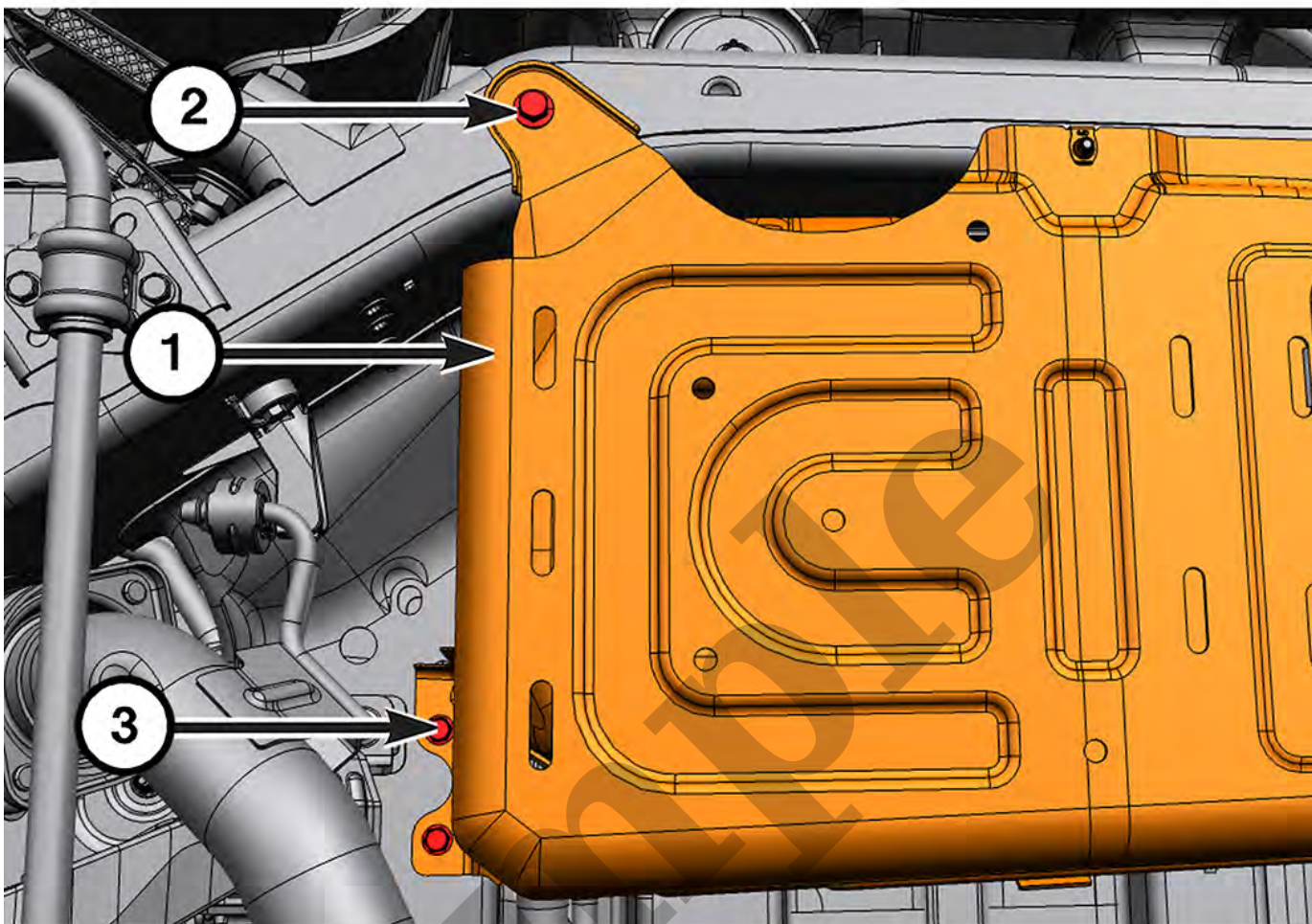
CONNECTING

1. Inspect the quick-connect fitting body and fuel system components for damage. Replace as necessary.
2. Prior to connecting any quick-connect fitting to components, check condition of fitting and components. Clean parts with a lint-free cloth. Lubricate with clean engine oil.
3. Insert the quick-connect fitting onto the fuel tube or fuel system component until the built-in stop on the fuel tube or component rests against the back of fitting.
4. Continue pushing until a click is felt.
5. Perform the specific instructions if equipped with the following quick-connectors:
 - **Redundant Latch Single Button Type Fitting:** Push redundant latch until it locks into position in the quick-connect fitting.
 - **Single Tab Type Fitting:** Push new tab down until it locks into position in the quick-connect fitting.
 - **Latch Clip Type Fitting:** Install latch clip (snaps into position). **If latch clip will not snap into position, this indicates the quick-connect fitting is not properly installed onto fuel system component, recheck the connection.**
6. Verify a locked condition by firmly pulling on the quick-connect fitting connection of the fuel system component.

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](#)



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1 - Fuel Tank Skid Plate

2 - Fuel Tank Skid Plate to Frame Bolts

3 - Fuel Tank Skid Plate to Rear Crossmember Bolts

7. Lower the tank and disconnect the fuel filler tube.