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2010 Jeep COMPASS PATRIOT Service Manual

[Go to manual page](#)

List 2

- 09 - Engine, 2.0L / Cooling System / Engine Cooling / FAN, Cooling / Removal and Installation
- 09 - Engine, 3.6L / Engine Cooling / FAN, Cooling / Removal and Installation
- 09 - Engine, 5.7L / Engine Cooling / FAN, Cooling / Removal and Installation

Sample

Cleaning/Reverse Flushing

CLEANING/REVERSE FLUSHING

CLEANING

Drain the cooling system and refill with water. Run the engine with the radiator cap installed until the upper radiator hose is hot. Stop the engine and drain the water from system. If the water is dirty, fill the system with water, run the engine and drain the system. Repeat this procedure until the water drains clean.

REVERSE FLUSHING

Reverse flushing of the cooling system is the forcing of water through the cooling system. This is done using air pressure in the opposite direction of normal coolant flow. It is usually only necessary with very dirty systems with evidence of partial plugging.

REVERSE FLUSHING RADIATOR

Disconnect the radiator hoses from the radiator inlet and outlet. Attach a section of the radiator hose to the radiator bottom outlet fitting and insert the flushing gun. Connect a water supply hose and air supply hose to the flushing gun.

CAUTION

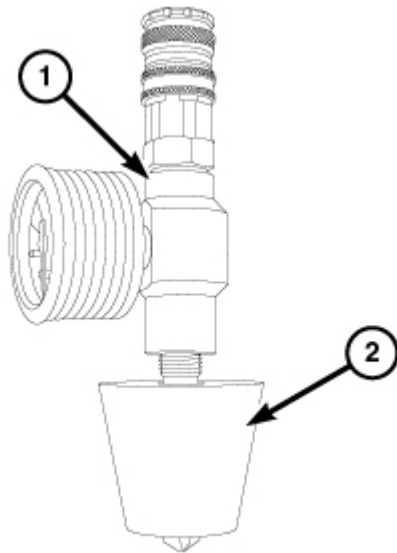
Internal radiator pressure must not exceed 138 kPa (20 psi) as damage to radiator may result.

Allow the radiator to fill with water. When the radiator is filled, apply air in short blasts. Allow the radiator to refill between blasts. Continue this reverse flushing until clean water flows out through the rear of the radiator cooling tube passages.

REVERSE FLUSHING ENGINE

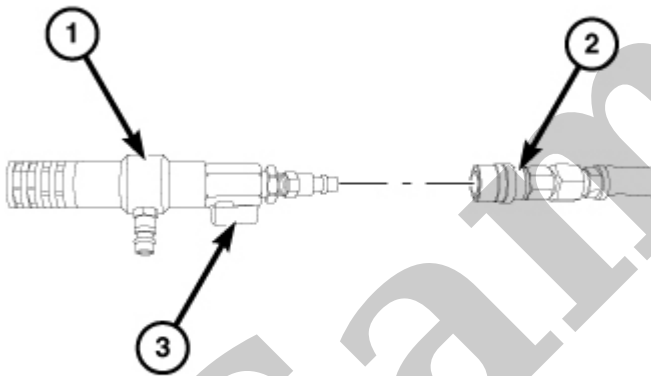
Drain the cooling system. Remove the thermostat housing and thermostat. Install the thermostat housing. Disconnect the radiator upper hose from the radiator and attach the flushing gun to the hose. Disconnect the radiator lower hose from the water pump and attach a lead-away hose to the water pump inlet fitting.

CAUTION



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3. Choose an appropriate adapter cone (2) that will fit the vehicle's radiator filler neck or reservoir tank.
4. Attach the adapter cone (2) to the vacuum gauge (1).



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5. Make sure the vacuum generator/venturi ball valve (3) is closed and attach an airline hose (2) (minimum shop air requirement of 80 psi (5.5 bar) to the vacuum generator/venturi (1).
6. Position the adaptor cone/vacuum gauge assembly into the radiator filler neck or reservoir tank. Ensure that the adapter cone is sealed properly.

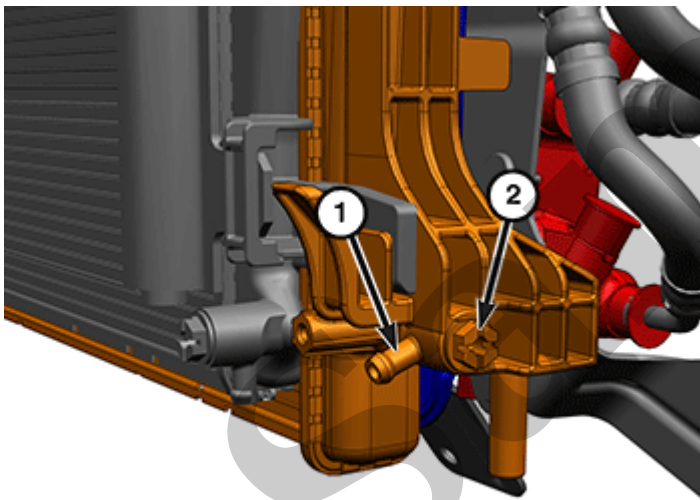
Draining

DRAINING

WARNING

Do not remove or loosen the coolant pressure cap, cylinder block drain plugs, or the draincock when the system is hot and under pressure because serious burns from the coolant can occur.

Using Radiator Drain



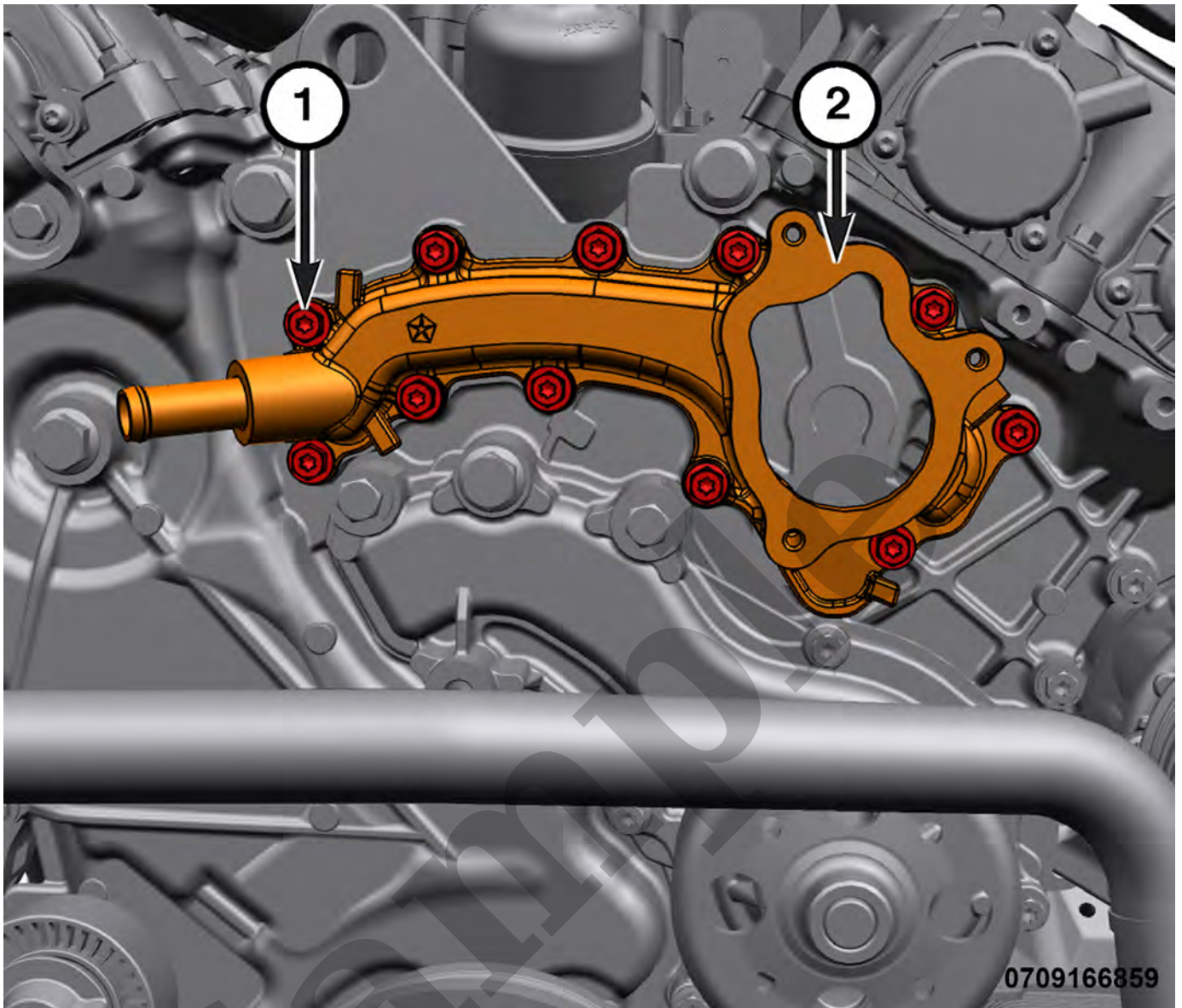
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1 - Radiator Drain

2 - Drain Valve

NOTE

The drain valve is located on the front of the radiator on the lower left side.



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1 - Coolant Crossover Bolts

2 - Coolant Crossover

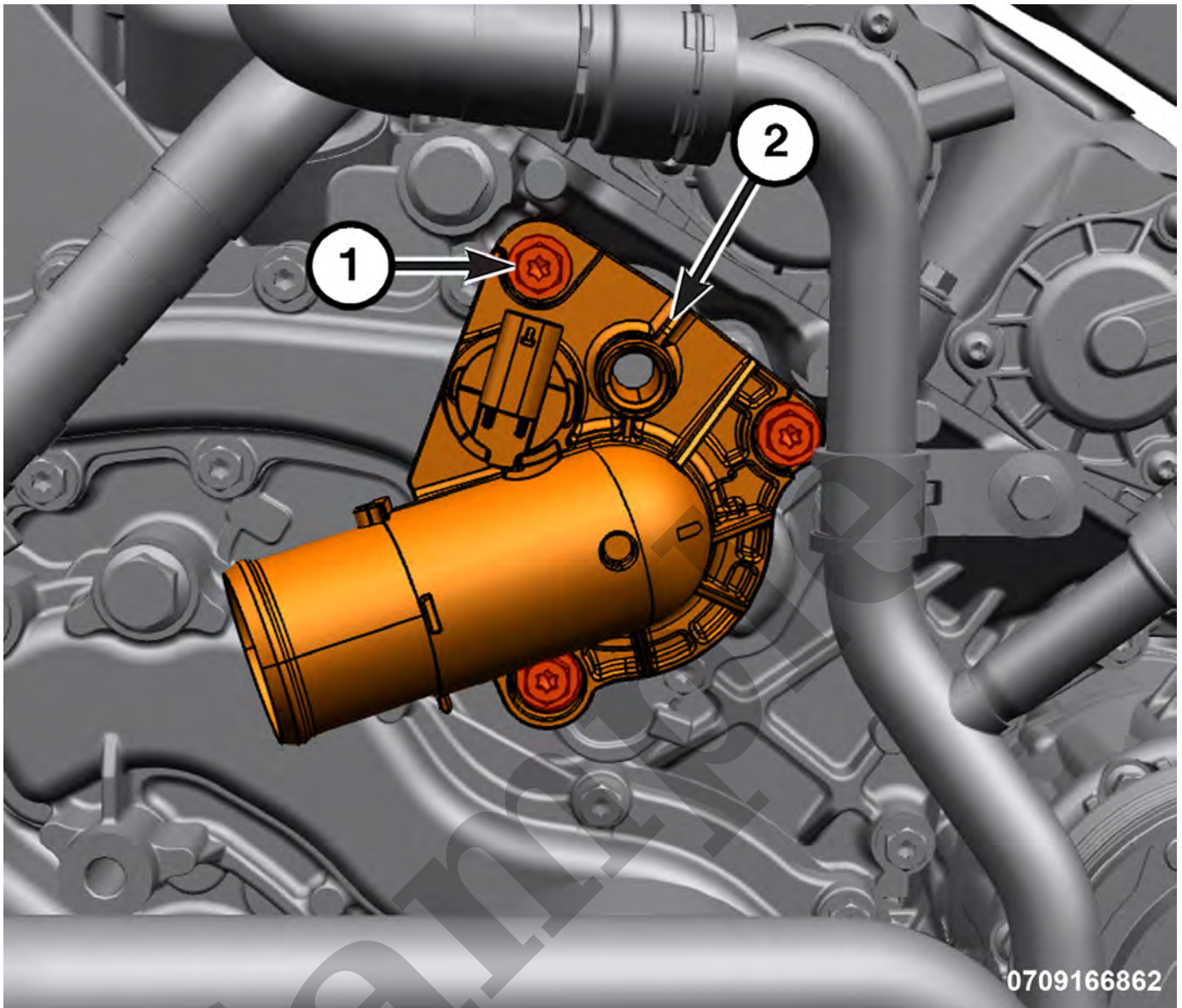
4. Remove the coolant crossover bolts and the coolant crossover.

1	Radiator Support Bracket Bolt	12 N·m (9 Ft. Lbs.)	–
2	Cooling Fan Bolts	7 N·m (62 In. Lbs.)	–
3	Upper Radiator Crossmember Bolts	15 N·m (11 Ft. Lbs.)	–
4	PTRN BRKT TO HOT BOTTLE BRKT (Pressurized Coolant Bottle Nuts)	8 N·m (71 In. Lbs.)	–
–	Coolant Tube Bolt	9 N·m (80 In. Lbs.)	–

Refer To List:

List 1

- [09 - Engine, 2.0L / Cooling System / Engine Cooling / THERMOSTAT / Removal and Installation](#)
- [09 - Engine, 3.6L / Engine Cooling / THERMOSTAT / Removal and Installation](#)
- [09 - Engine, 5.7L / Engine Cooling / THERMOSTAT / Removal and Installation](#)



1 - Thermostat Housing Bolts

2 - Thermostat Housing

8. Remove the thermostat housing bolts and the thermostat housing.

9. Remove and discard the gasket.

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.

1	Radiator Support Bracket Bolt	12 N·m (9 Ft. Lbs.)	–
2	Cooling Fan Bolts	7 N·m (62 In. Lbs.)	–
3	Upper Radiator Crossmember Bolts	15 N·m (11 Ft. Lbs.)	–
4	PTRN BRKT TO HOT BOTTLE BRKT (Pressurized Coolant Bottle Nuts)	8 N·m (71 In. Lbs.)	–
–	Coolant Tube Bolt	9 N·m (80 In. Lbs.)	–

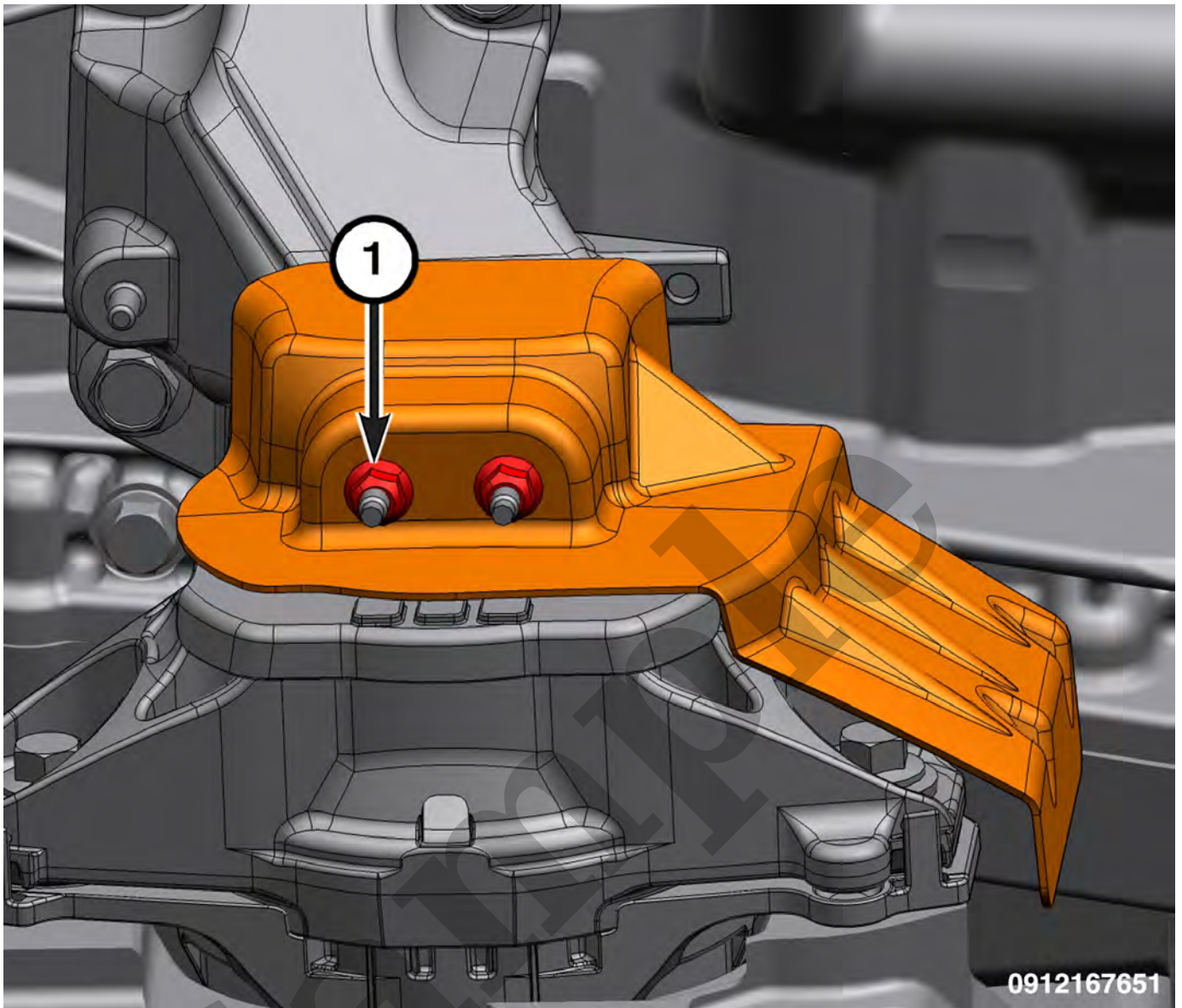
Refer To List:

List 1

- [09 - Engine, 2.0L / Air Intake System / TUBE, Intake Air / Removal and Installation](#)
- [09 - Engine, 3.6L / Air Intake System / TUBE, Intake Air / Removal and Installation](#)
- [09 - Engine, 5.7L / Air Intake System / TUBE, Intake Air / Removal and Installation](#)

List 2

- [09 - Engine, 2.0L / Cooling System / Engine Cooling / Standard Procedure](#)
- [09 - Engine, 3.6L / Engine Cooling / Standard Procedure](#)
- [09 - Engine, 5.7L / Engine Cooling / Standard Procedure](#)



1 - Left Engine Mount Heat Shield Nuts

3. Remove the left engine mount heat shield nuts and the left engine mount heat shields.