March 2021

Dealer Service Instructions for:

Safety Recall W79 / NHTSA 20V-699
Diesel EGR Cooler

Remedy Available

2014 - 2019 (WK) Jeep® Grand Cherokee

NOTE: This recall applies only to the above vehicles equipped with a 3.0L Eco Diesel Engine ***(sales code EXF).***

NOTE: Some vehicles above may have been identified as not involved in this recall and therefore have been excluded from this recall.

IMPORTANT: Some of the involved vehicles may be in dealer new vehicle inventory. Federal law requires you to complete this recall service on these vehicles before retail delivery. Dealers should also consider this requirement to apply to used vehicle inventory and should perform this recall on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

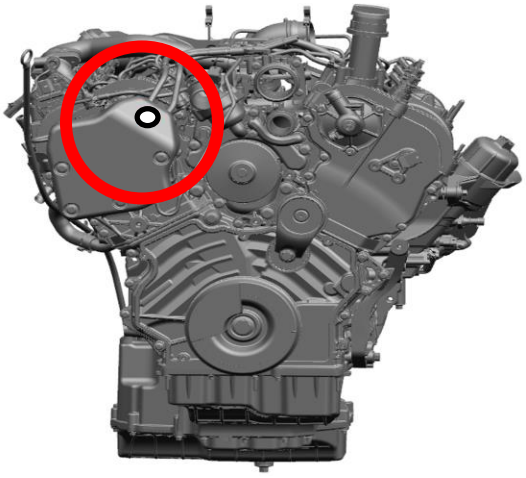
Subject

The Exhaust Gas Recirculation (EGR) cooler on about 34,000 of the above vehicles may be susceptible to thermal fatigue. Thermal fatigue may cause the cooler to crack internally over time. An EGR cooler with an internal crack will introduce pre-heated, vaporized coolant to the EGR system while the engine is running. In certain circumstances, this mixture interacts with other hydrocarbons and air in the system, potentially resulting in combustion within the intake manifold, which may lead to a vehicle fire. A vehicle fire may increase the risk of injury to occupants and persons outside of the vehicle, as well as property damage.

Repair

Replace the EGR cooler assembly. If Malfunction Indicator Lamp (MIL) is illuminated, inspect vehicle for either or both P0299 and P2D2F DTCs. If present, also perform section **B. Intake Manifold Inspection and Leak Test.** Replace Intake Manifold, if perforation is identified using test procedure.

NOTE: If a vehicle had a new Mopar provided replacement engine please inspect for a white or yellow mark on the front fuel pump cover (Figure Below). If a yellow or white mark is present it's an indication the updated EGR cooler has been installed, *NO EGR cooler replacement is necessa*ry.



Alternate Transportation

Dealers should attempt to minimize customer inconvenience by placing the owner in a loaner vehicle if inspection determines that repair is required and the vehicle must be held overnight.

Parts Information

Part Number	Description
CSNDVB12AA	**Kit, EGR Cooler Installation**

Each package contains the following components:

Quantity	Description
2	Cooler Bushings with O-Rings
2	Gasket, ERG Tube
2	Nut
2	Bolt, Turbo to EGR Tube
2	O-Ring, Intake Support
1	Bolt, Torx Head

Part Number	Description
CSNDVB11AA	**Kit, EGR Cooler**

Each package contains the following components:

Quantity	Description
1	Cooler, EGR

68163849AB	**Coolant, as required (MS12106) (MSQ of 4) (1 gallon services approximately 3 vehicles)**

NOTE: The following parts below are required only for vehicles that FAIL section A. Inspection procedure.

Part Number	Description
CSNDVB13AA	**Kit, High Pressure Fuel Lines**

Each package contains the following components:

Quantity	Description
2	Fuel Line, High Pressure
3	Fuel Lines

Parts Information [Continued]

Part Number	Description
CSNDVB14AA	**Kit, Intake Manifold and Gaskets**

Each package contains the following components:

Quantity	Description
1	Intake, Manifold

Parts Return

No parts return required for this campaign.

Special Tools

The following special tools are required to perform this repair:

- NPN wiTECH micro pod II
- NPN Laptop Computer
- NPN wiTECH Software
- 2025400090 Remover-Installer, Fuel Rail Bolt
- 8404C Kit, EELD and Accessory
- 399-550000 Uview Airlift Cooling System Refill or equivilant

Service Procedure

A. Inspection

1. Start engine and observe if the "Malfunction Indicator Lamp" is illuminated.

    a) Is the "Malfunction Indicator Lamp" (MIL) illuminated?

    - **NO** - proceed to section **E. Replace EGR Cooler, page 22.**
    - **YES –** proceed to **step 2**.

2. Connect the wiTECH micro pod II to the vehicle data link connector.

3. Place the ignition in the "**RUN**" position.

4. Open the wiTECH 2.0 website.

5. Enter your "**User id**" and "**Password**" and your "**Dealer Code**", then select "**Sign in**" at the bottom of the screen. Click "**Accept**".

6. From the "**Vehicle Selection**" screen, select the vehicle to be updated.

7. From the "**Topology**" tab, select the "**PCM**" module icon.

8. Click "**View DTCs**".

9. Does the vehicle have **one** or **both** of the following **DTC's** below?

    - P0299 – Turbocharger Underboost Condition
    - P2D2F – Cold Start Turbocharger Underboost Condition

    YES - Proceed to section **B. Intake Manifold Inspection and Leak Test**

    NO - Advise customer of any DTC(s) and proceed with section **E. Replace EGR Cooler, page 22.**

Service Procedure [Continued]

B. Intake Manifold Inspection and Leak Test

1. Position the passenger seat fully forward.
2. Open the battery access cover located under the passenger front seat and disconnect the negative battery cable (Figure 1).

NOTE: Depending on the type of smoke machine used, it may be necessary to reconnect the battery cable to provide 12v power to the smoke machine.

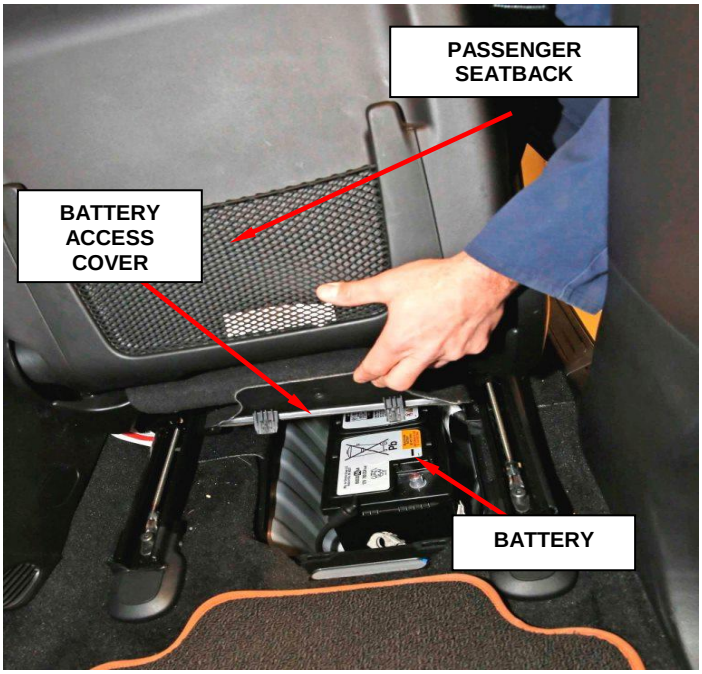


Figure 1 – Battery Access

3. Remove the engine cover (Figure 2).

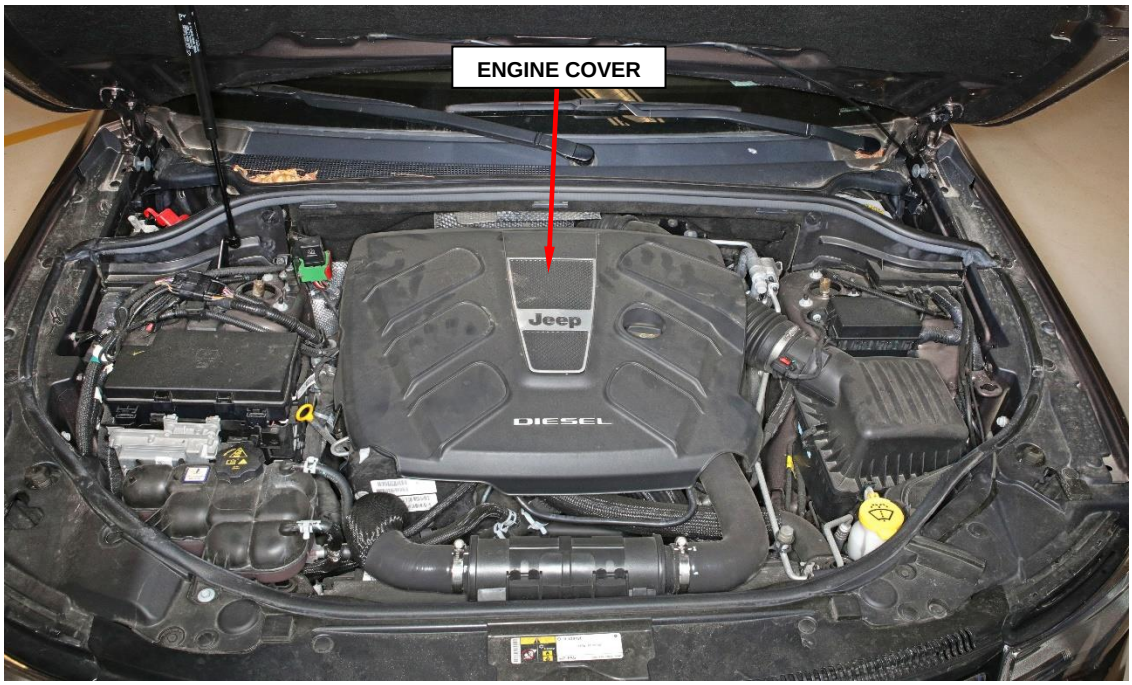


Figure 2 – Engine Compartment

Service Procedure [Continued]

4. Remove TMAP sensor (boost pressure sensor) from the back of the intake and inspect the tip for signs of melting (Figure 3 and Figure 4).

Figure 3 – Normal Sensor

Figure 4 – Melted Sensor

Does the sensor show signs of melting?

- **YES** – Go to section **C. Intake Manifold Removal.**
- **NO** - Go to Step 5.

Service Procedure [Continued]

5. Insert the smoke machine hose into the TMAP hole of the intake manifold and allow the intake to build up smoke (Figure 5).

6. Visually check the air intake system for any smoke leaks. Especially around the intake manifold. You should be able to see large amounts of smoke escaping from around or under the intake manifold if perforation is present.

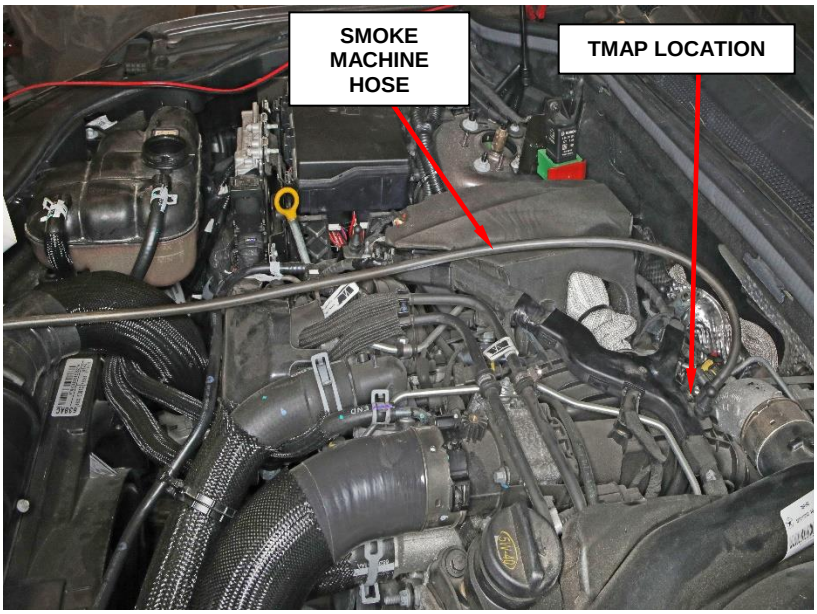


Figure 5 – Smoke Test Location

7. Inspect the cooler, and all hoses for source of the leak. Was the leak isolated to the Intake Manifold?

   - Yes - Proceed to section **C. Intake Manifold Removal.**
   - No - Further diagnosis and repair are required. Repair as necessary per normal, published repair and warranty guidelines.

Service Procedure [Continued]

C. Intake Manifold Removal

1. Disconnect the electrical connector from the Mass Air Flow (MAF) sensor (Figure 6).

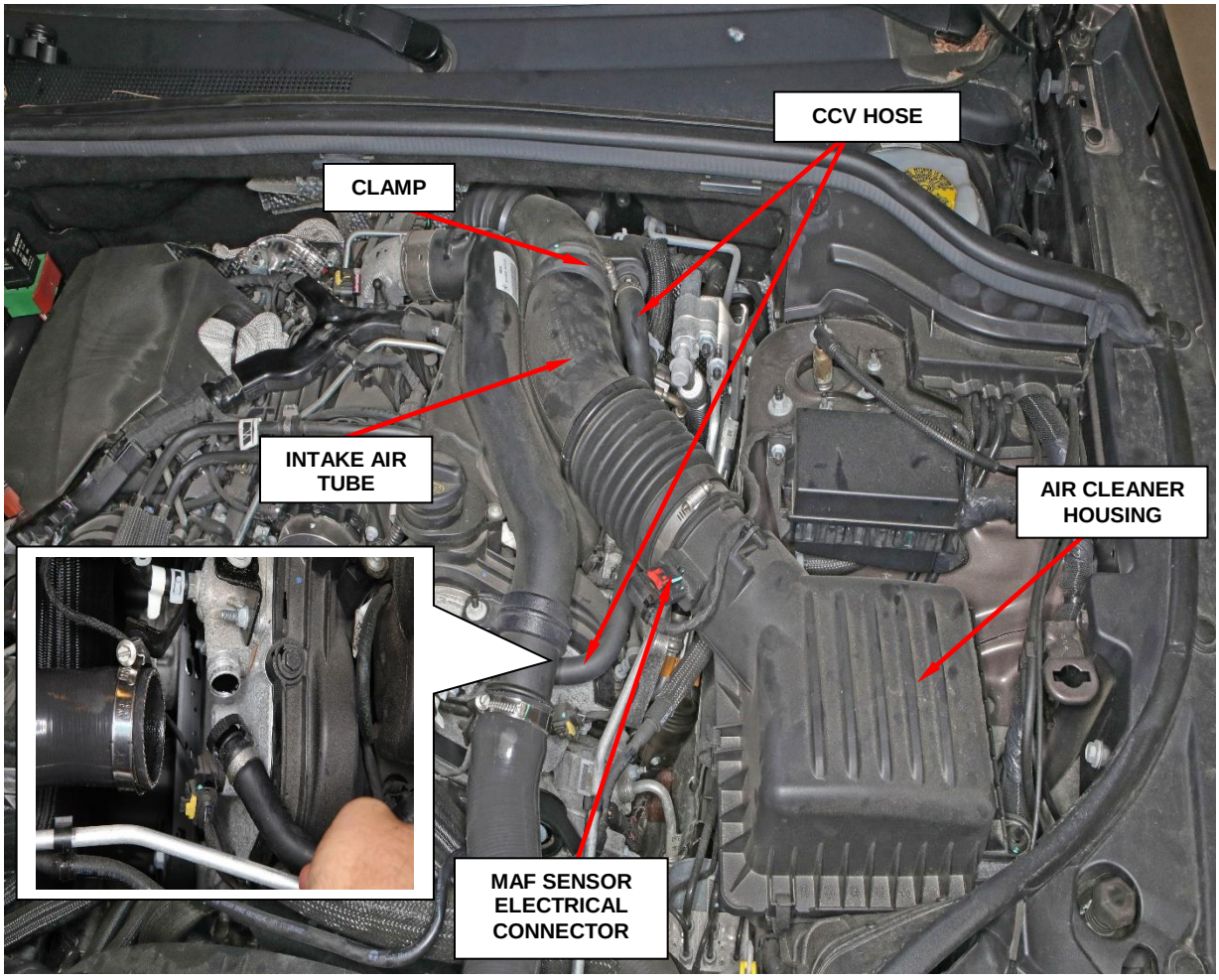


Figure 6 – Air Cleaner Housing

2. Loosen clamp and disconnect the intake air tube from air cleaner housing (Figure 6).

3. Unclip the top of the Air Cleaner Housing and remove the top housing (Figure 6).

Service Procedure [Continued]

4. Loosen the air intake clamp at the turbocharger intake at the back of the engine and remove the turbocharger air intake tube (Figure 6).

   NOTE: Air intake clamp loosening is a blind operation.

Figure 7 – CCV Hose

5. Remove the Crank Case Ventilation (CCV) hose from the oil vapor separator cover. (During removal of the CCV hose do NOT disconnect CCV hose at the Air Tube (Figure 7).

6. Disconnect the (CCV) hose heater wire harness connector (Figure 8).

   NOTE: Disconnecting the electrical connector is a blind operation, it's located near the turbo air inlet elbow.

Figure 8 – Hose Heater Wire Harness Connector

Service Procedure [Continued]

7. Remove the right fuel injector silencer pad (Figure 9).
8. Remove the nut securing the left Charge Air Cooler (CAC) hose (Figure 9).
9. Loosen the tube clamp and disconnect the CAC hose at the resonator (Figure 9).
10. Release the retaining lock (1) and disconnect the CAC (2) hose from the turbocharger elbow and remove the hose (Figure 9).

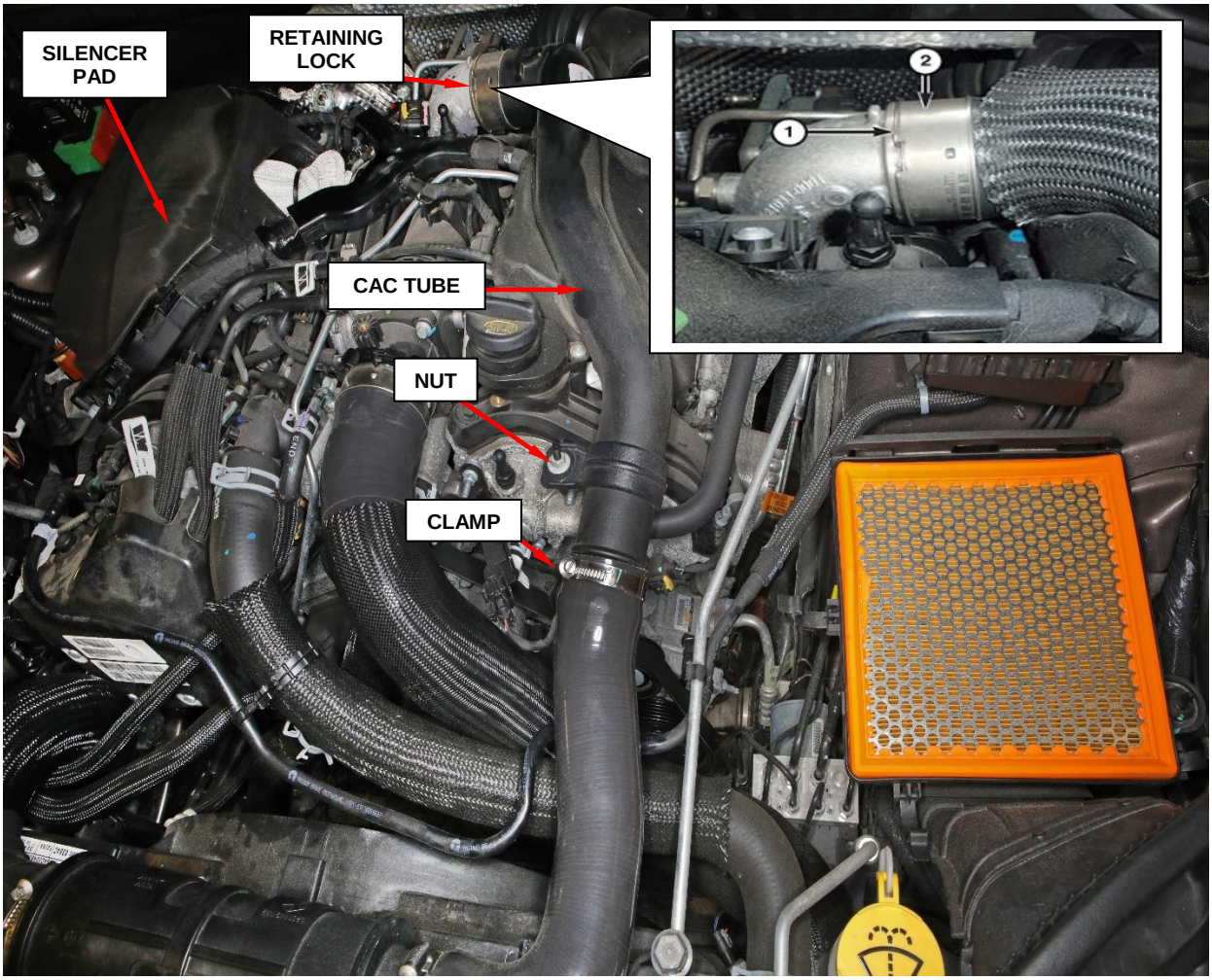


Figure 9 – Charge Air Cooler Hose

Service Procedure [Continued]

11. Remove the EGR tube bolts (2) at the EGR cooler (Figure 10).

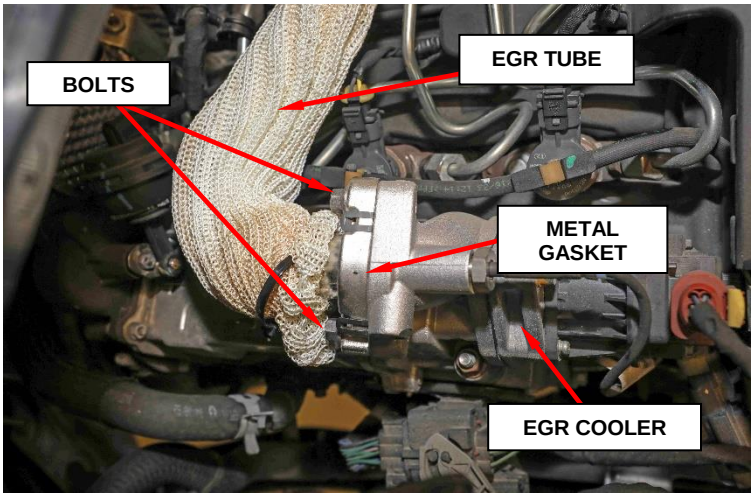


Figure 10 – EGR Tube

12. Remove the EGR bolts (2) at the intake manifold (Figure 11).

13. Remove the EGR tube and **DISCARD** the metal gasket (Figure 10).

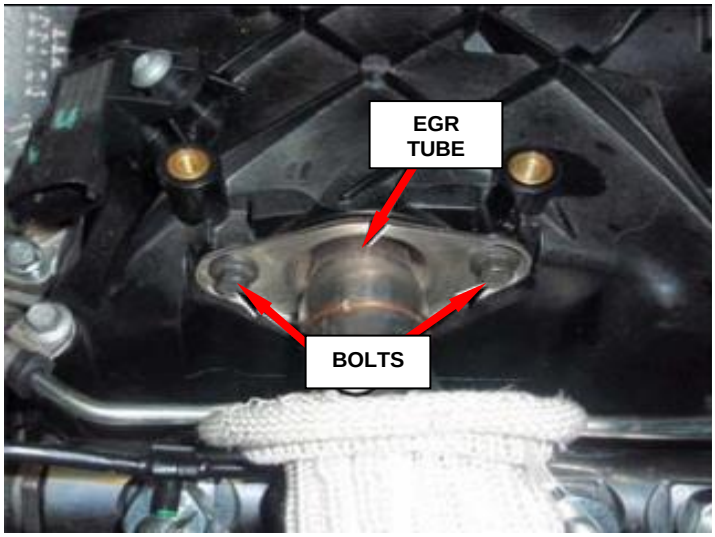


Figure 11 – EGR Tube Mount at Intake

14. Disconnect the turbocharger outlet temperature sensor wire harness connector (Figure 12).

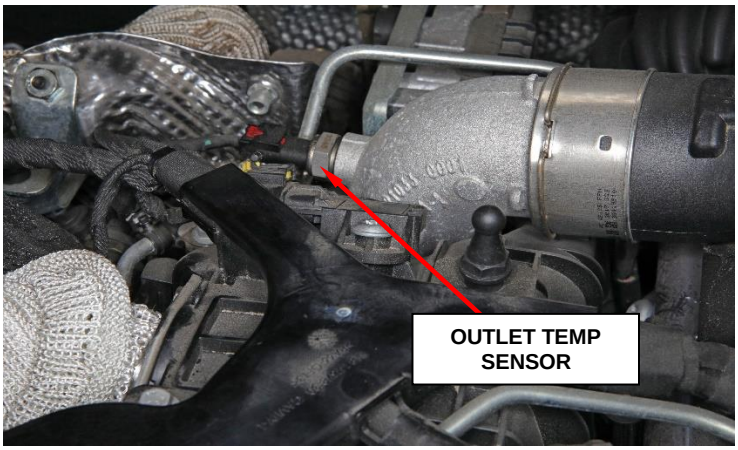
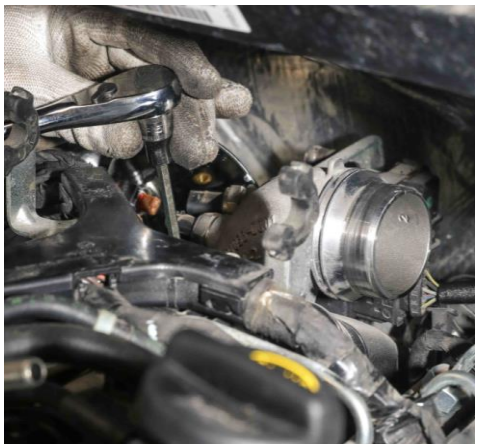


Figure 12 – Turbocharger Outlet Temp Sensor

Service Procedure [Continued]

15. Remove the 2 bolts and the turbocharger outlet elbow (Figure 13).



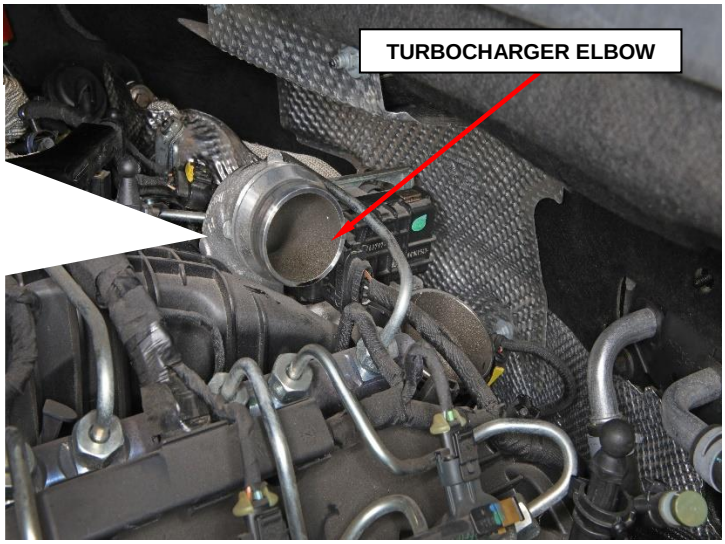


Figure 13 – Turbocharger Elbow

NOTE: It is recommended to use a 5-inch-long stem 5mm ball-end Hex Bit socket to assist in removing the turbocharger outlet elbow bolts.

16. Remove the 2 bolts securing the wire harness loom (Figure 14).

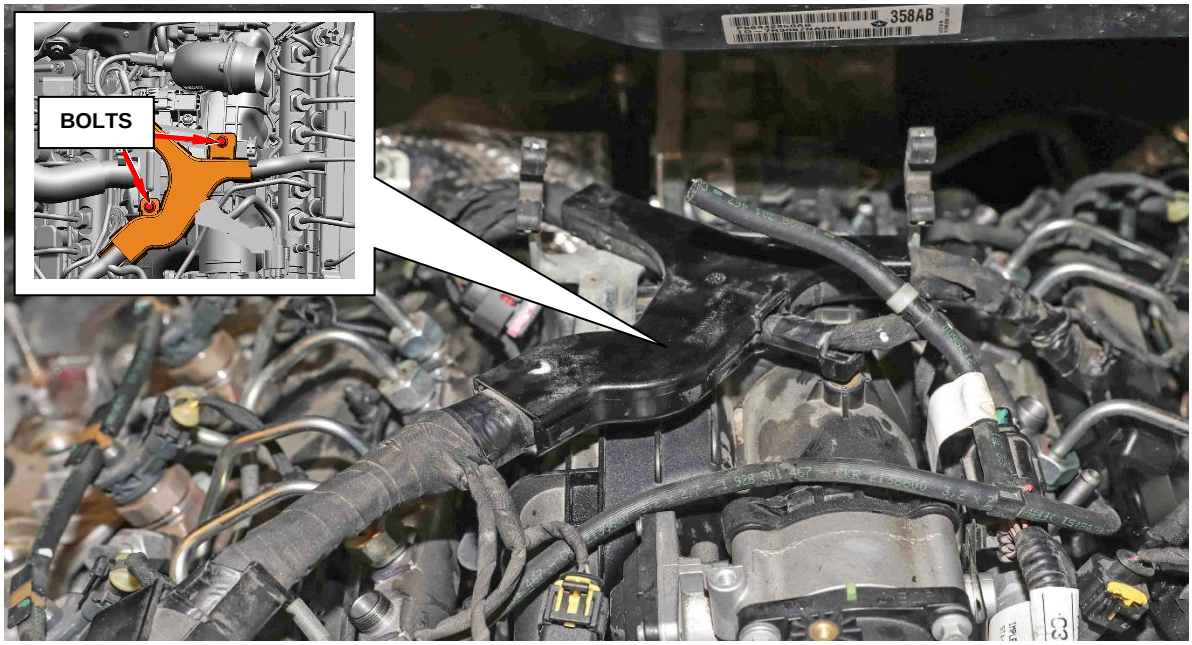


Figure 14 – Wire Harness Loom

Service Procedure [Continued]

17. Remove the bolt that secures the fuel cross-over line to the intake manifold (Figure 15).

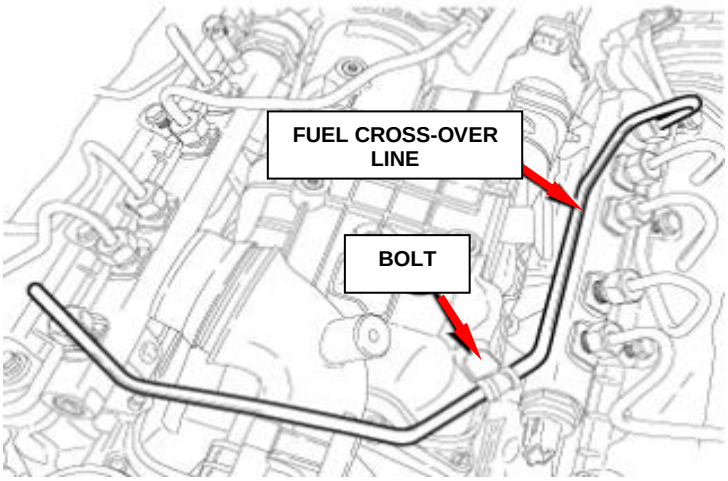


Figure 15 – Fuel Cross Over Line

18. Remove the fuel rail cross-over line and **DISCARD** the line (Figure 15).

NOTE: The crossover fuel tube is a onetime use only. The fuel tube must be discarded and a NEW tube must be installed.

19. Remove the 4 bolts and the fuel injection pump blocker shield (Figure 16).

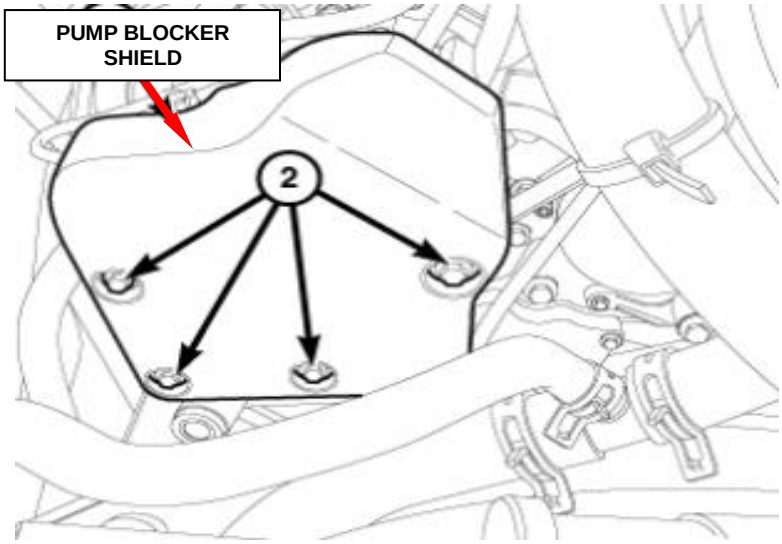


Figure 16 – Fuel Pump Blocker Shield

20. Unscrew the union nuts and remove the left side high pressure fuel supply tube.

Service Procedure [Continued]

21. Disconnect the EGR Vacuum Solenoid harness electrical connector (1) (Figure 17).

22. Remove the 2 fasteners from the EGR solenoid (Figure 17).

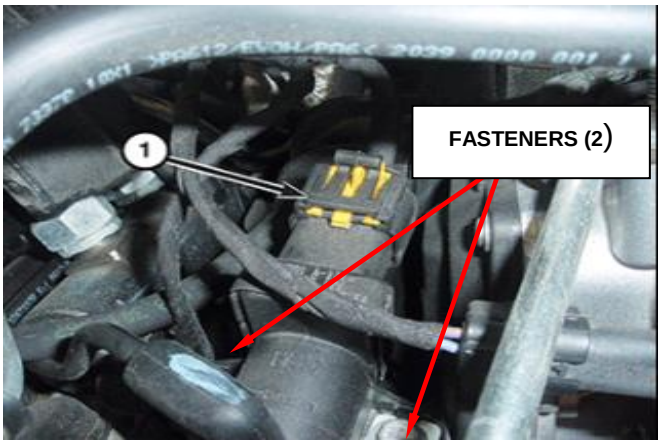


Figure 17 – EGR Vacuum Solenoid

23. Disconnect the inlet air temperature sensor wire harness connector (Figure 18).

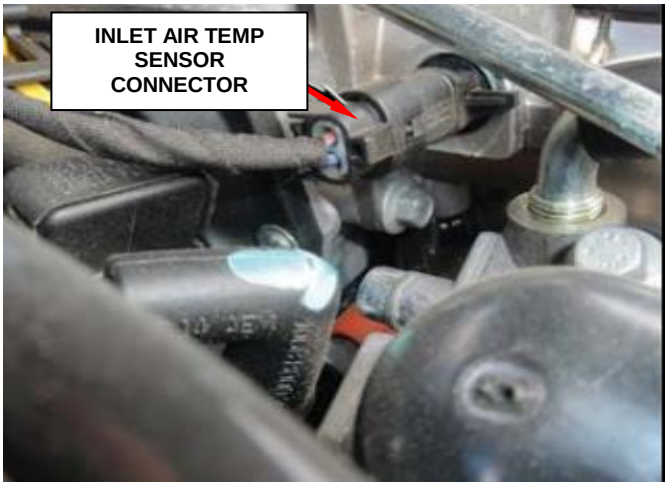


Figure 18 – Inlet Air Temp Sensor

24. Disconnect the wire harness connector next to EGR air flow control valve (Figure 19).

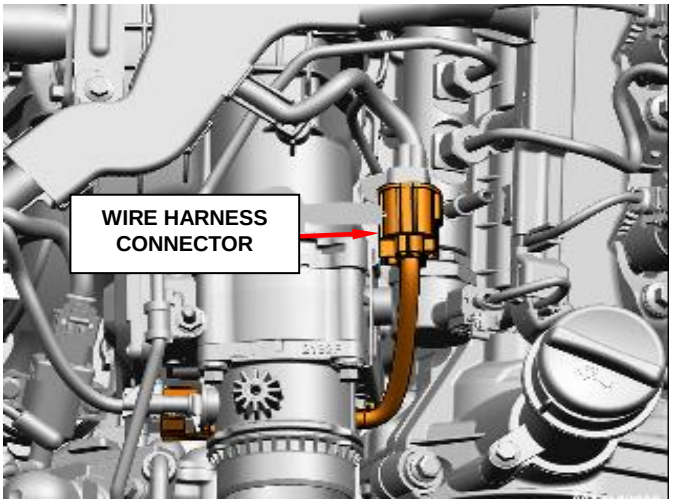


Figure 19 – EGR Connector

Service Procedure [Continued]

25. Remove the bolts and position the EGR airflow control valve forward to access the wire harness connector (Figure 20).

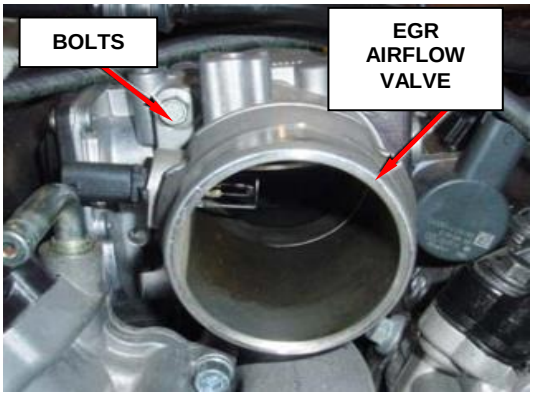


Figure 20 – EGR Valve

26. Disconnect the following left side wire harness connectors:
    - Swirl valve wire (left front).
    - Fuel pressure solenoid.
    - Oil vapor pressure sensor.
    - Camshaft position sensor.
    - Fuel injectors.
    - Turbocharger actuator.
    - Glow plugs.
    - Oil pressure sensor.
    - Oil Temp sensor.

27. Unscrew the union nuts and remove the 3 left side fuel tubes and **DISCARD** the fuel tubes.

28. Install protective caps on the fuel injectors and the fuel rail.

29. Disconnect the following right side wire harness connectors:
    - Swirl valve wire (right rear).
    - Fuel pressure sensor.
    - Glow plugs.
    - Fuel injectors.

30. Remove the fasteners securing the wire harness to right cylinder head cover and position aside the wire harness.

31. Using a shop vacuum, vacuum around the perimeter of the intake manifold.

Service Procedure [Continued]

32. Using the Remover-Installer, Fuel Rail Bolt 2025400090 remove the bolts and the left fuel rail (Figure 21).

Figure 21 – Remover-Installer

33. Remove the 11 bolts and the intake manifold.

    Tip: Use shallow swivel socket to aid in bolt removal.

    CAUTION: Do Not rest the intake manifold on the swirl valve actuator. Care must be taken when handling the swirl valve assembly.

34. Transfer the intake manifold wiring harness onto the **NEW** intake manifold (Figure 22).

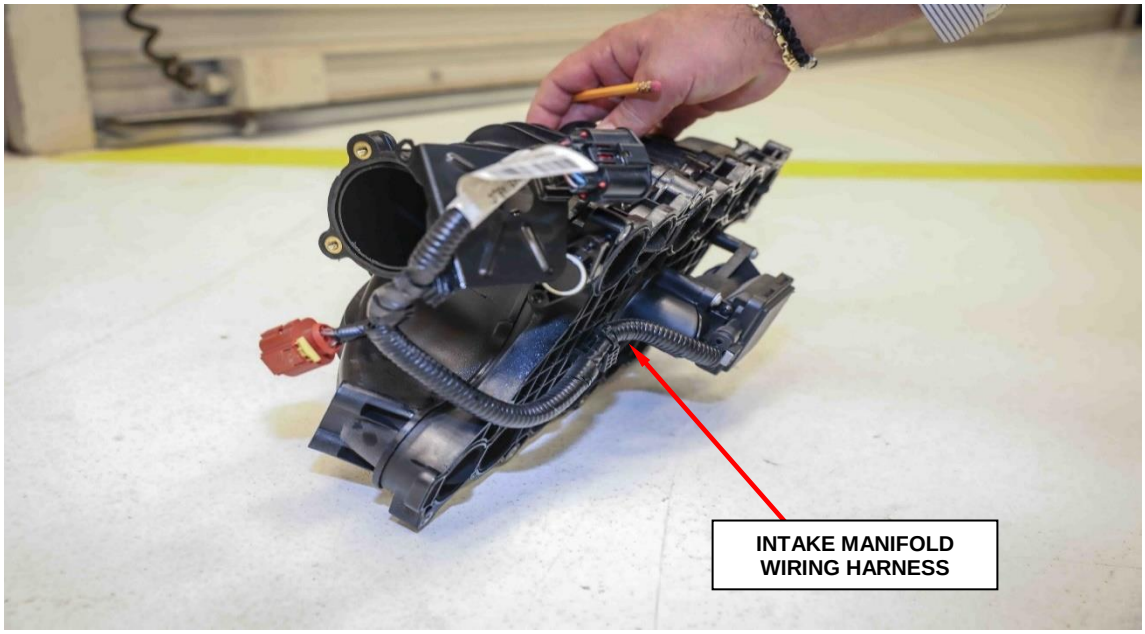


Figure 22 – Intake Manifold

35. Continue to section **D. Intake Manifold Installation.**

Service Procedure [Continued]

D. Intake Manifold Installation.

1. Clean the intake gasket sealing surfaces.

2. Install the intake manifold and tighten the bolts finger tight.

3. Using the tightening sequence shown, tighten the bolts to 12 N·m (9 ft. lbs.) (Figure 23).

Figure 23 – Intake Bolts Tightening Sequence

NOTE: Fuel tubes are a one-time only use and must be replaced anytime they have been removed.

4. Install the left side fuel rail.

   a. Install the fuel rail. Using the **Remover-Installer, Fuel Rail Bolt 2025400090**, tighten the bolts to 25 N·m (18 ft. lbs.) (Figure 21).

5. Position the wire harness to the engine and securely tighten the fasteners securing the wire harness to right cylinder head cover.

Service Procedure [Continued]

6. Connect the following right side wire harness connectors:

   - Swirl valve wire (right rear).
   - Fuel pressure sensor.
   - Glow plugs.
   - Fuel injectors.

7. Install the engine wire harness assembly to the intake manifold and push down to seat the wire harness retainers, and tighten the bolts to 11 N·m (8 ft. lbs.) (Figure 14).

8. Connect the following left side wire harness connectors:

   - Swirl valve wire (left front).
   - Fuel pressure solenoid.
   - Oil vapor pressure sensor.
   - Camshaft position sensor.
   - Fuel injectors.
   - Turbocharger actuator.
   - Glow plugs.
   - Oil pressure sensor.
   - Oil temp sensor.

9. Remove the protective caps on the fuel injectors and the fuel rail.

   NOTE: Use a backing wrench on the fuel injector when tightening the union nut.

   NOTE: The fuel tubes are a one-time only use and must be replaced anytime they have been removed.

10. Install the **NEW** left side fuel tubes and tighten the union nuts finger tight.

    - Tighten the union nuts **at the fuel rail** to 5 N·m (44 in. lbs.) plus an additional 75 degrees turn.

    - Tighten the union nuts **at the fuel injectors** to 11 N·m (8 ft. lbs.) plus an additional 75 degrees turn.

Service Procedure [Continued]

NOTE: Use a backing wrench on the fuel injector when tightening the union nut.

WARNING: Observe the following precautions when working on fuel systems: No sparks, open flames or smoking. Avoid inhaling and swallowing fuel. Avoid eye and skin contact with fuel. Pour fuels only into suitable and appropriately marked containers. Wear protective clothing. Failure to observe these precautions may result in fire, explosion, property damage, and serious or fatal injury.

WARNING: High-pressure lines deliver diesel fuel under extreme pressure from the injection pump to the fuel injectors. This may be as high as 2000 bar (29,008 psi). Use extreme caution when inspecting for high-pressure fuel leaks. Fuel under this amount of pressure can penetrate skin causing personal injury or death. Inspect for high-pressure fuel leaks with a sheet of cardboard. Wear safety goggles and adequate protective clothing when servicing fuel system.

11. Position the EGR airflow control valve and connect the EGR airflow control valve harness connector.

12. Install the EGR airflow control valve and tighten the bolts to (9 N·m 80 in. lbs.). (Figure 20).

13. Connect the inlet air temperature sensor wire harness connector (Figure 18).

14. Install the EGR bypass solenoid and tighten the bolts to 9 N·m (80 in. lbs.) (Figure 17).

15. Connect the wire harness connector next to EGR air flow control valve (Figure 19).

16. Install the **NEW** left high pressure fuel tube and tighten union nuts finger tight:

    - Tighten the union nut **<u>at the fuel rail</u>** to 5 N·m (44 in. lbs.) plus an additional 75 degrees turn.
    - Tighten the union nut **<u>at the fuel pump</u>** to 11 N·m (8 ft. lbs.) plus an additional 75 degrees turn.

NOTE: Fuel tubes are a one-time only use and must be replaced anytime they have been removed.

Service Procedure [Continued]

17. Install the fuel line bracket and tighten the nut to 8 N·m (71 in. lbs.) (Figure 15).

18. Install the fuel injection pump blocker shield and tighten the bolts to 25 N·m (18 ft. lbs.) (Figure 16.)

19. Install the **NEW** cross-over fuel tube and tighten the union nuts finger tight (Figure 15).

    - Tighten the union nuts to 5 N·m (44 in. lbs.) plus an additional 75 degrees turn.

20. Install the bolt securing the fuel cross over line and tighten to 11 N·m (8 ft. lbs.) (Figure 15).

21. Be sure the O-ring seal is seated in the turbocharger outlet flange.

22. Install the turbocharger outlet elbow and tighten the bolts to 11 N·m (8 ft. lbs.).

23. Connect the outlet temperature sensor wire harness connector.

24. Connect the boost pressure sensor wire harness connector (TMAP).

25. Install the left fuel injector silencer.

26. Connect the Charge Air Cooler (CAC) hose to the turbocharger elbow (Figure 12).

27. Install the CAC hose and securely tighten the clamp (Figure 9).

28. Install the nut securing the left CAC hose and tighten securely (Figure 9).

29. Proceed to section **E. Replace EGR Cooler**

Service Procedure [Continued]

E. Replace EGR Cooler

1. Disconnect and isolate the negative battery cable (Figure 24).

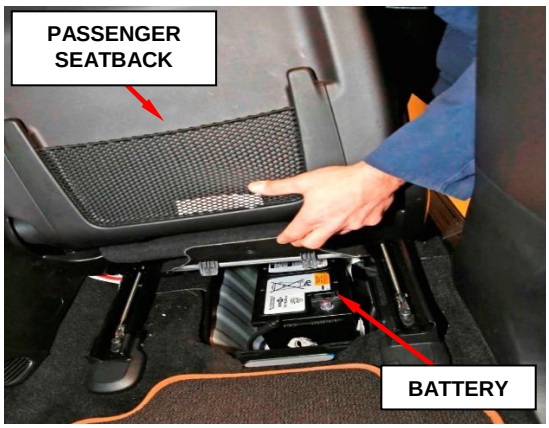


Figure 24 - Battery

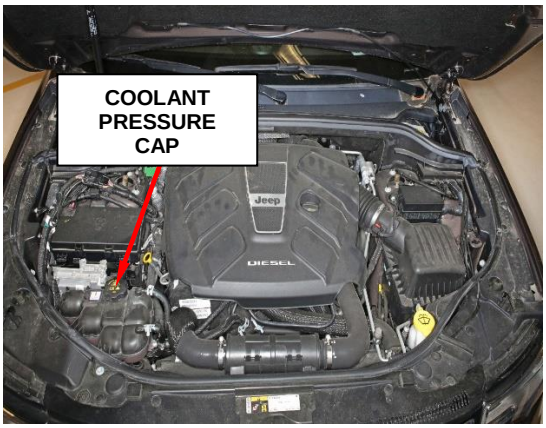


Figure 25 – Engine Cover

2. Remove coolant pressure cap (Figure 25).

3. Raise and support the vehicle.

4. **If equipped**: remove the front skid plate (Figure 26).

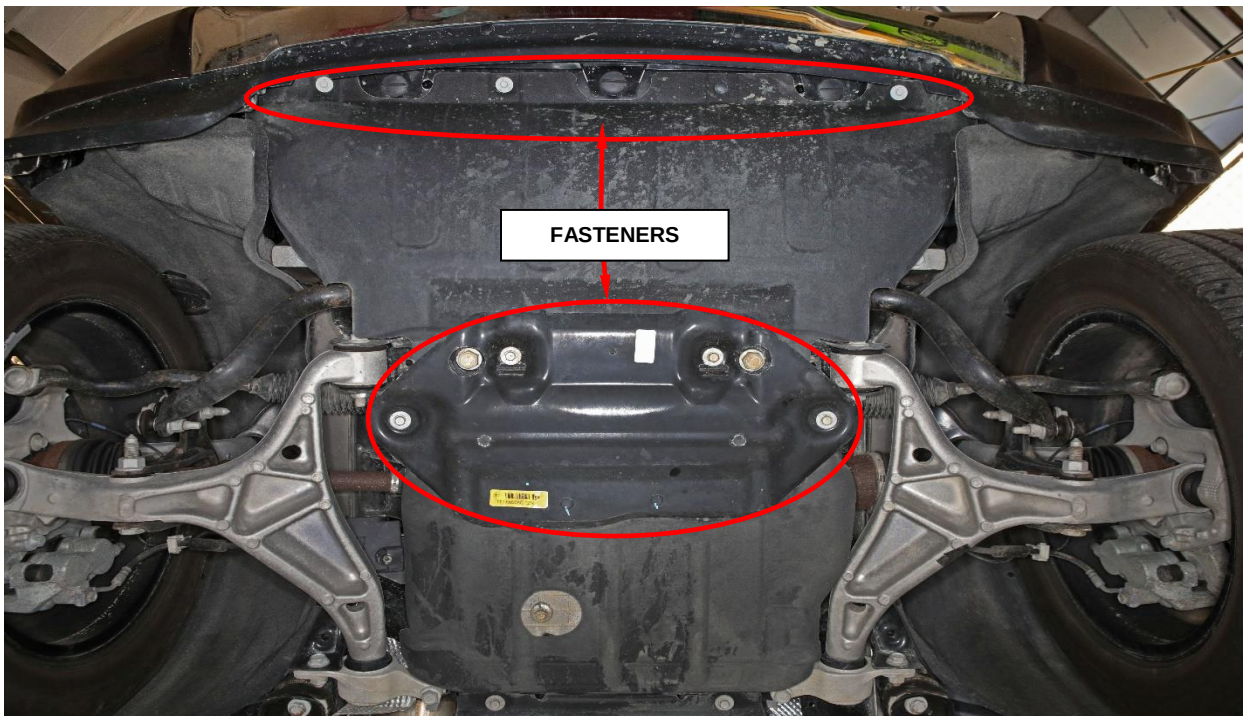


Figure 26 – Skid Plate

Service Procedure [Continued]

5. Use the following steps to drain the cooling system.

   NOTE: It is not necessary to completely drain the cooling system.

   WARNING: Make sure engine cooling system is cool before servicing. Do not remove any clamps or hoses, pressure cap, or open the radiator draincock. When the system is hot and under pressure serious burns from coolant can occur.

   NOTE: DO NOT WASTE reusable coolant. If the solution is clean, drain the coolant into a clean container for reuse.

   NOTE: When servicing the cooling system, it is essential that coolant does not drip onto the accessory drive belts and/or pulleys. Shield the belts with shop towels before working on the cooling system. If coolant contacts the belts or pulleys, flush both with clean water.

   a. Position a clean drain pan under draincock location.

   b. Open radiator draincock located at the lower left side of radiator. Turn draincock counterclockwise until it stops and allow to drain (Figure 27).

   c. Tighten the radiator draincock (Figure 27).

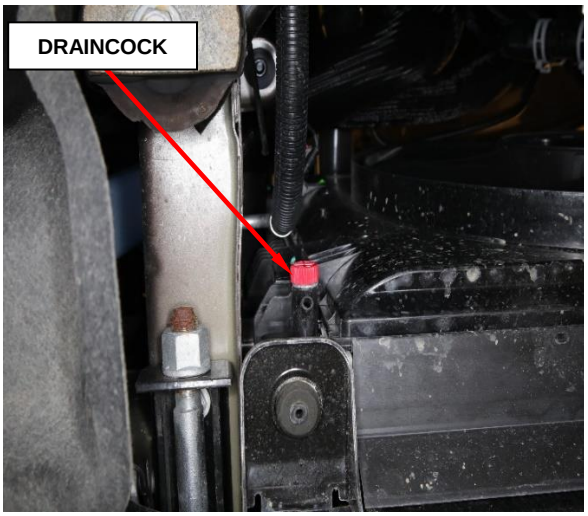


Figure 27 - Radiator Draincock

6. **If equipped:** Install the front skid plate and tighten the bolts to 18 N·m (13 ft. lbs.).

7. Lower the vehicle.

Service Procedure [Continued]

8. Remove the engine cover (Figure 28).

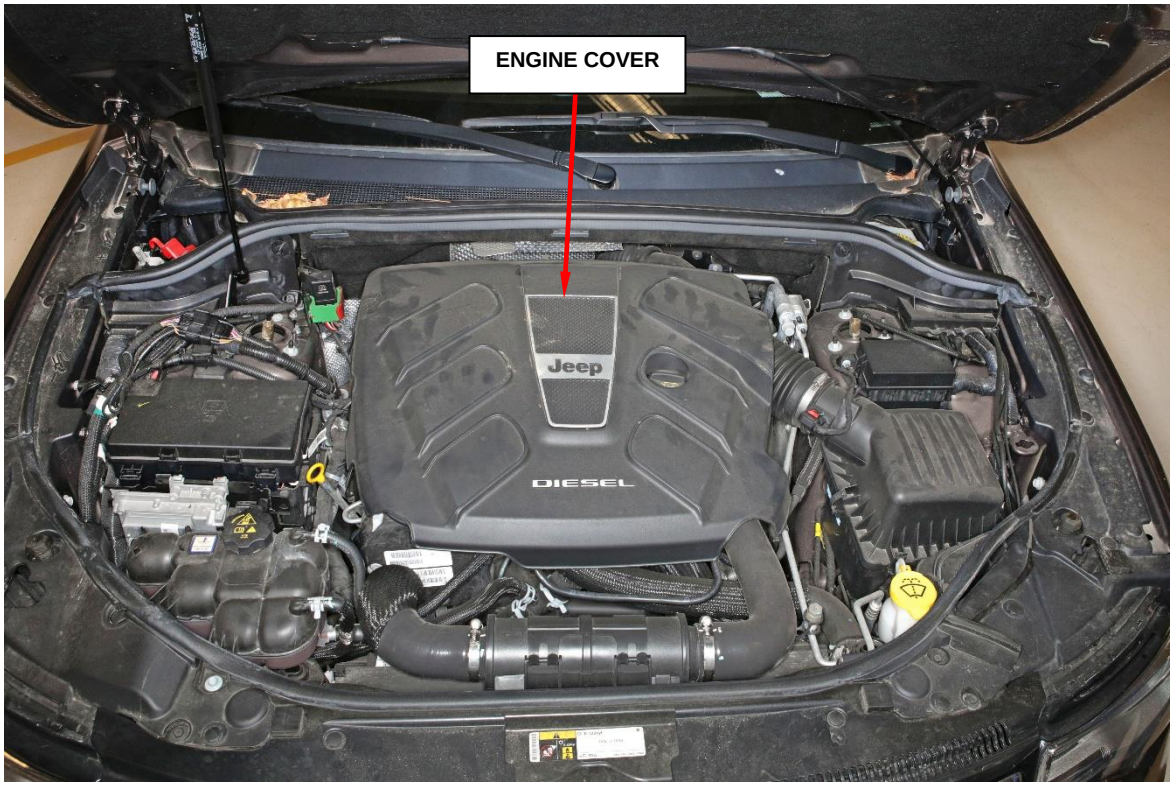


Figure 28 – Engine Cover

9. Remove the right side fuel injector silencer (Figure 29).

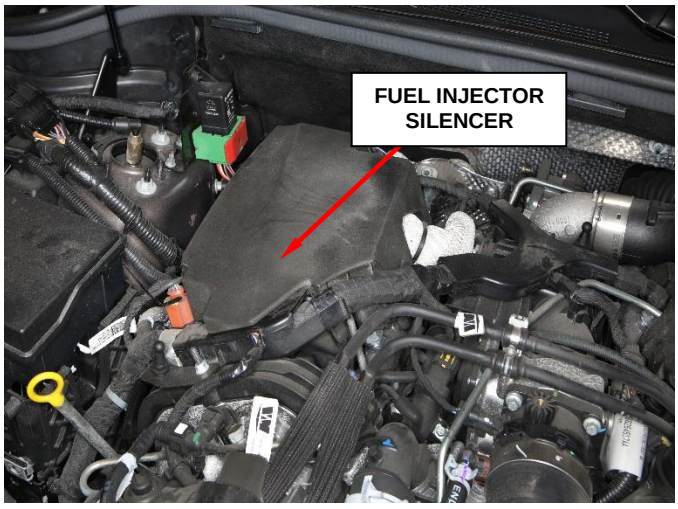


Figure 29 – Fuel Injector Silencer

Service Procedure [Continued]

10. Remove the (2) EGR tube bolts (Figure 30).

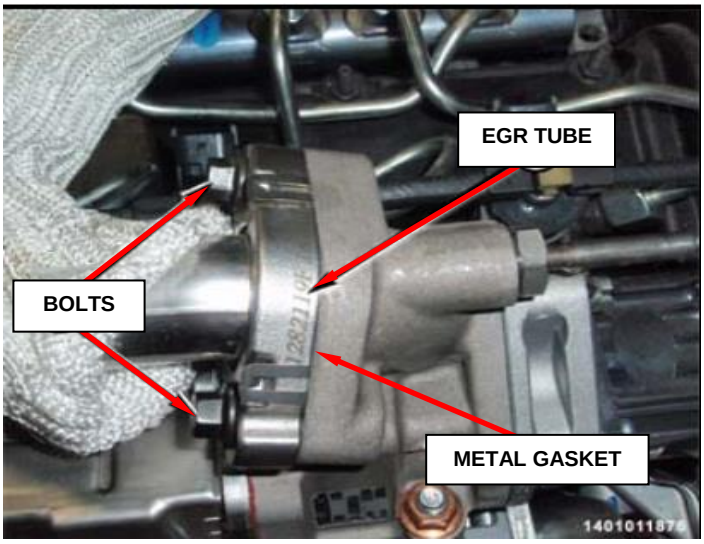


Figure 30 – EGR Tube

11. Remove the (2) bolts at the intake manifold and the EGR tube (Figure 31).

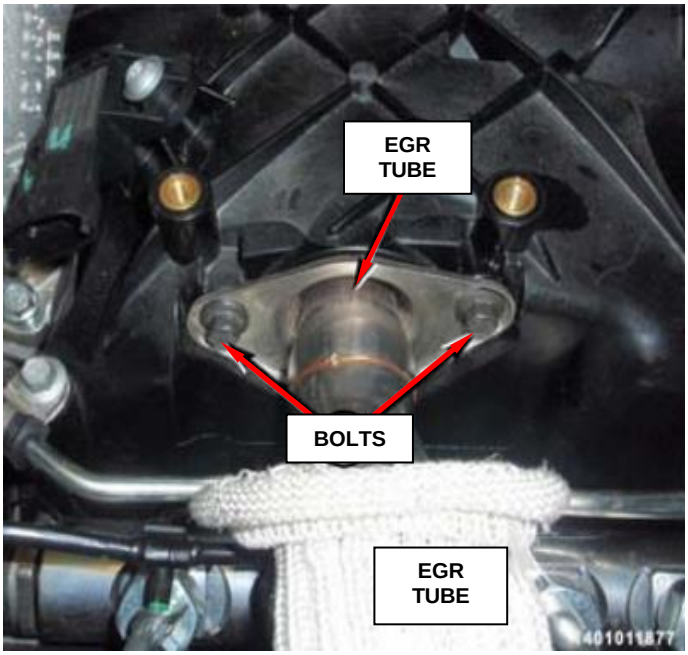


Figure 31 – EGR Tube Mounting

12. Remove and discard the metal gasket (Figure 30).

Service Procedure [Continued]

13. Disconnect EGR temperature sensor wire harness connector (Figure 32).

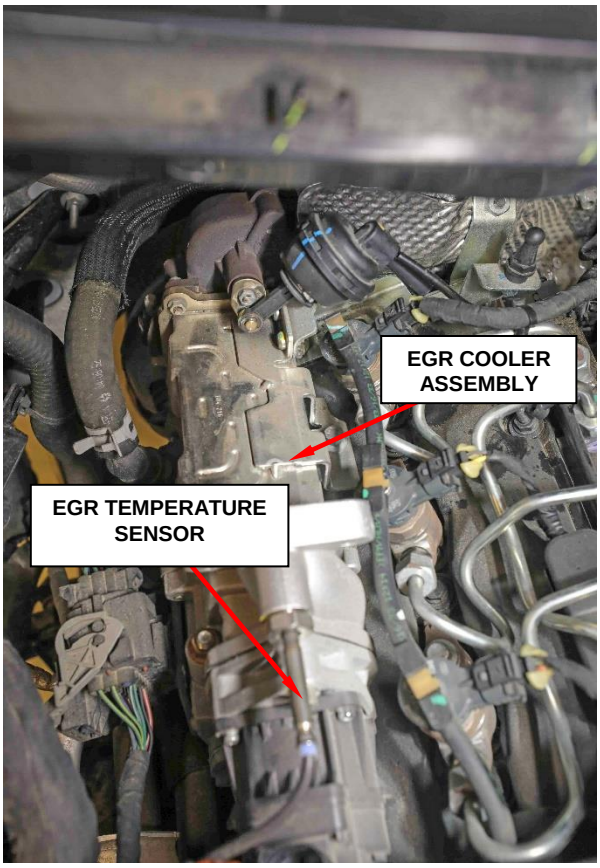


Figure 32 – EGR Cooler

14. Disconnect the EGR valve wire harness connector (Figure 33).

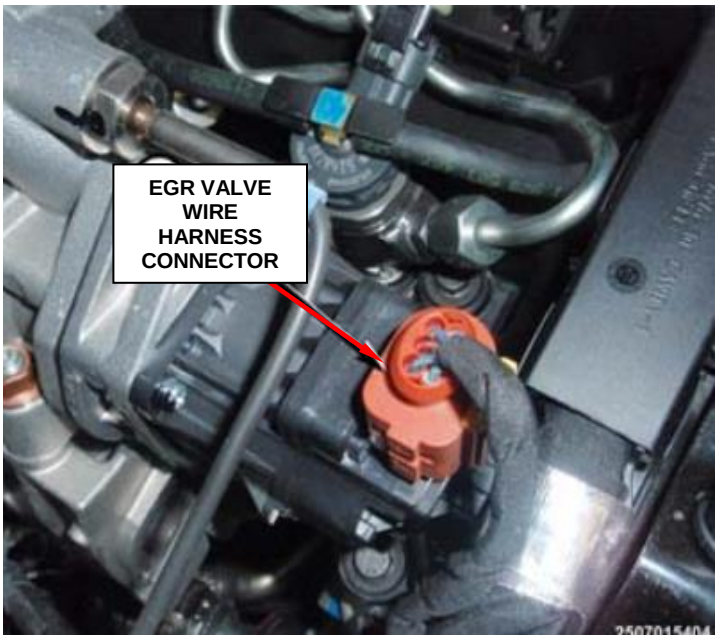


Figure 33 – EGR Connector

Service Procedure [Continued]

15. Disconnect the EGR cooler vacuum bypass hose (Figure 34).

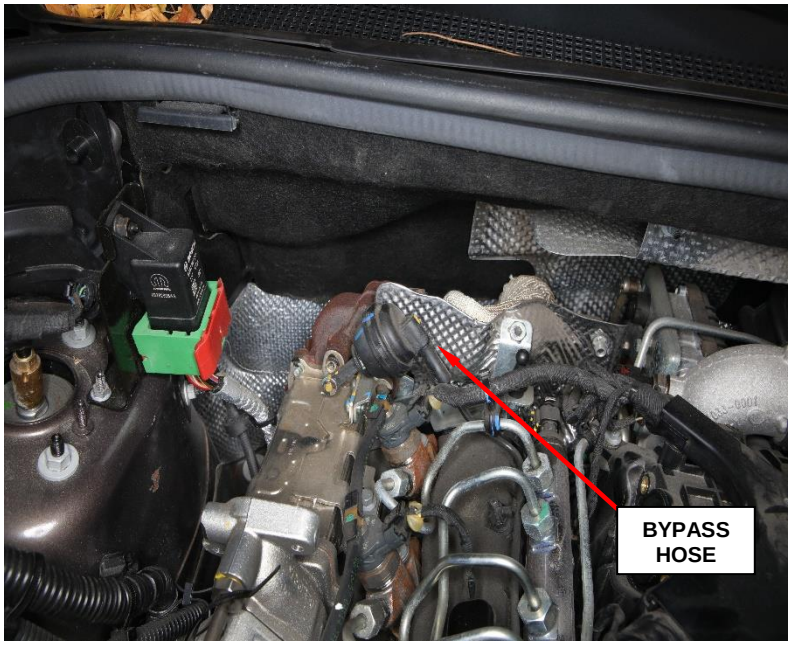


Figure 34 – Vacuum Bypass Hose

16. Remove the bolts and the tube from the EGR cooler (Figure 35).

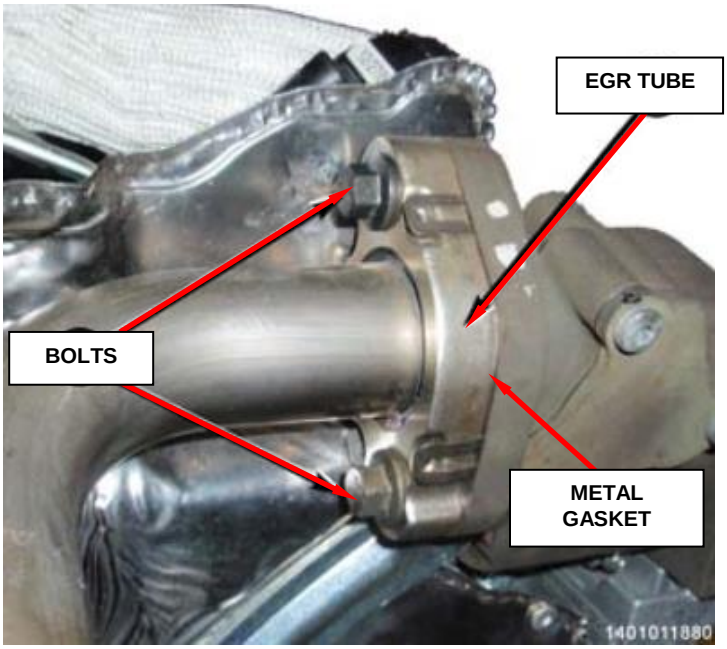


Figure 35 – EGR Tube

Service Procedure [Continued]

17. Remove the top bolt at the rear of the EGR cooler bypass valve support bracket (Figure 36).

NOTE: Do not remove the lower bolt from the support bracket.

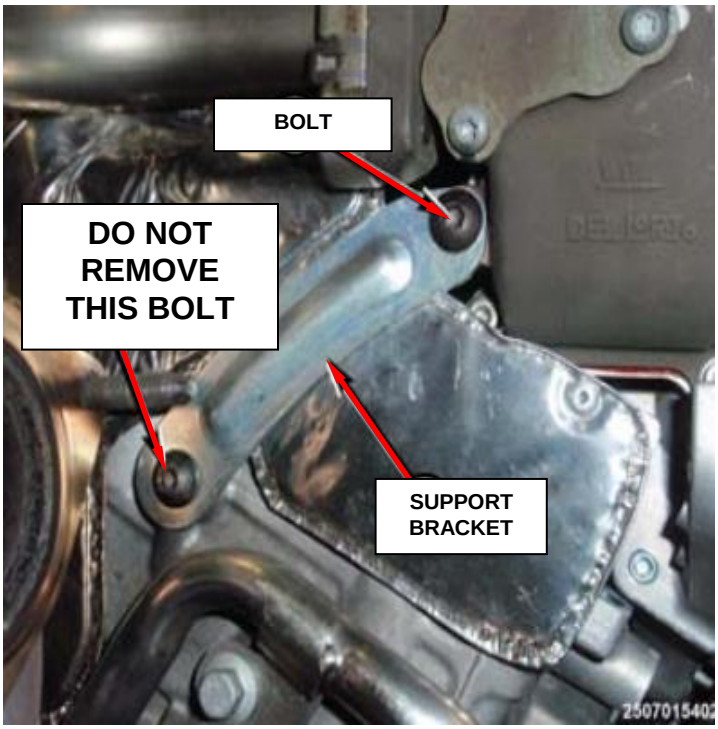


Figure 36 - Bracket Mount Bolt

18. Remove the two nuts and bolt and the EGR cooler assembly (Figure 37).

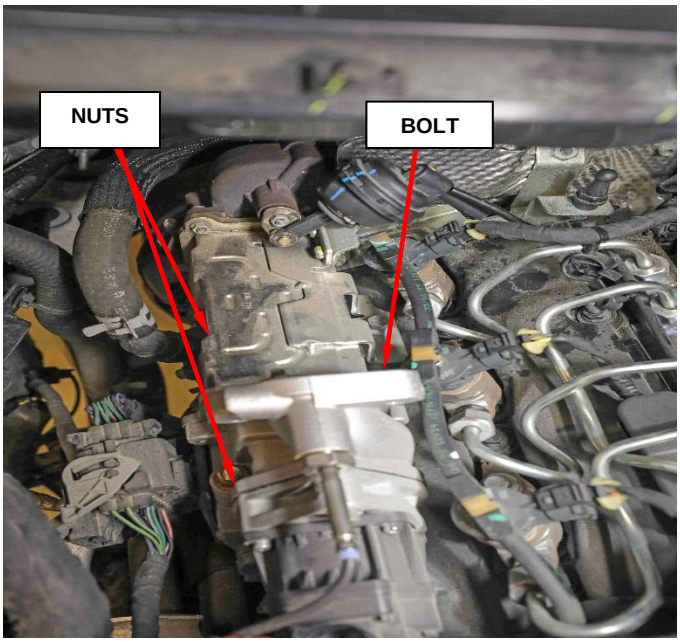


Figure 37 – EGR Mounting

Service Procedure [Continued]

19. Remove and **DISCARD** the O-ring seals (Figure 38).

Figure 38 – O-rings

20. Clean the O-ring sealing surfaces.

21. Install **NEW** O-ring seals onto the EGR cooler and mounting bracket

22. Lubricate the (2) **NEW** O-ring seals attached to EGR cooler bushings and install them onto the EGR cooler ports.

    NOTE: Only use clean coolant to lubricate the O-rings and avoid using any petroleum products on the O-rings.

23. Install the **NEW** EGR cooler assembly and tighten the nuts and bolt to 25 N·m (18 ft.lbs.).

24. Install the **NEW** bolt at the rear EGR cooler bypass valve support bracket and tighten to 25 N·m (18 ft. lbs.) (Figure 36).

25. Install the exhaust tube and **NEW** metal gasket and tighten the bolts to 25 N·m (18 ft. lbs.) (Figure 35).

26. Connect the EGR cooler vacuum bypass hose (Figure 34).

IMPORTANT

NOTE: The rubber sleeve on the vacuum hose must be inserted to the full depth of the slot on top of the vacuum actuator. To facilitate insertion use P80 or a similar lubricant (soapy water).

Correct Connection

Not Acceptable

Service Procedure [Continued]

27. Connect the EGR valve wire harness connector (Figure 33).

28. Connect EGR temperature sensor wire harness connector (Figure 32).

29. Using the following steps install the EGR tube.

30. Clean all gasket sealing areas.

31. Install a **NEW** EGR tube adapter pipe metal gasket (Figure 30).

32. Install the EGR tube to the intake manifold and tighten the bolts to 11 N·m (8 ft. lbs.).

33. Install the EGR tube to the EGR cooler assembly and tighten the bolts to 25 N·m (18 ft. lbs.).

34. Install the fuel injector silencer (Figure 29).

35. Install the engine cover.

36. Connect the negative battery cable.

37. Continue to section **F. Fill the Cooling System.**

Service Procedure [Continued]

F. Fill the Cooling System

1. Use the following steps to evacuate air and refill the cooling system.

   a. Using Refractometer 8286 or equivalent, following the manufacturer's instructions, test the coolant freeze point (Figure 39).

   - If the coolant tested **is between** -25°F and - 50°F (-31°C and -45°C) and is free of contamination, reuse the **original** the coolant.

   - If the coolant tested is contaminated, refill the cooling system with **new** coolant.

   - If the coolant tested is **not between** -25°F and - 50°F (-31°C and -45°C) and is free of contamination, **use the chart below to add the appropriate amount of new coolant** prior to completely refilling the cooling system with the remaining original coolant (Figure 40).

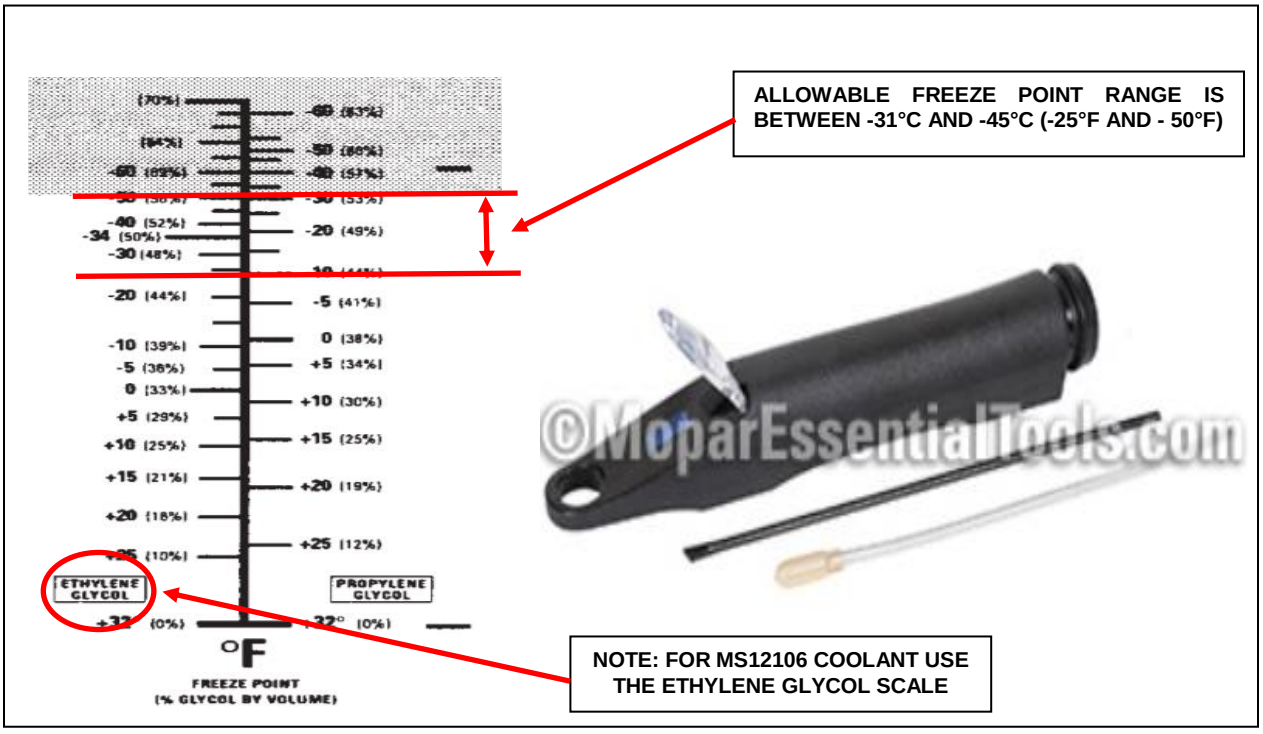


Figure 39 - Refractometer 8286 or Equivalent

Service Procedure [Continued]

COOLANT ADJUSTMENT CHART TO MAINTAIN RECOMMENDED FREEZE POINT PROTECTION

Freeze Point (°F) vs. Percent Premix Coolant

EXAMPLE: FOR A VEHICLE WITH A SINGLE RADIATOR AND A -20°F FREEZE POINT, 4 QUARTS OF NEW PREMIXED COOLANT MUST REPLACE 4 QUARTS OF ORIGNAL COOLANT PRIOR TO COMPLETING THE REFILL PROCEDURE.

												Acceptable Concentrations						
Freeze Point, °F[1]	+32	+25	+20	+15	+10	+5	0	-5	-10	-15	-20	-25	-30	-35	-50	-65	-75	-84
EG Content, vol%	0%	10%	16%	21%	25%	29%	33%	36%	39%	42%	44%	46%	48%	50%	55%	60%	65%	70%
Drain Coolant and Add New Premixed Coolant (Quarts)																		
Single Radiator	20	18	16	14	14	12	10	8	8	6	4					6	10	12
Dual Radiators	24	22	20	18	16	14	12	10	8	6	6					8	12	14

1) The specified refractometer shows freeze point (FP) values down to ~-84°F. For FPs below -84F (off the scale), replace all of the coolant with New Premixed Coolant.

2) 1 Gallon = 4 Quarts or 3.8 Liters

Figure 40 – Coolant Adjustment Chart

NOTE: Evacuating or purging air from the cooling system involves the use of a pressurized air operated vacuum generator. The vacuum created allows for a quick and complete coolant refilling while removing any airlocks present in the system components.

WARNING: Antifreeze is an ethylene glycol base coolant and is harmful if swallowed or inhaled. If swallowed, drink two glasses of water and induce vomiting. If inhaled, move to fresh air area. Seek medical attention immediately. Do not store in open or unmarked containers. Wash skin and clothing thoroughly after coming in contact with ethylene glycol. Keep out of reach of children. Dispose of glycol based coolant properly. Contact your dealer or government agency for location of collection center in your area. Do not open a cooling system when the engine is at operating temperature or hot under pressure; personal injury can result. Avoid radiator cooling fan when engine compartment related service is performed; personal injury can result.

Service Procedure [Continued]

WARNING: WEAR APPROPRIATE EYE AND HAND PROTECTION WHEN PERFORMING THIS PROCEDURE.

NOTE: The service area where this procedure is performed should have a minimum shop air requirement of 80 PSI (5.5 bar) and should be equipped with an air dryer system.

NOTE: For best results, the radiator should be empty. The vehicle's heater control should be set to the heat position (ignition may need to be turned to the on position but do not start the motor).

b. Refer to the Mopar Essential Tools and Service Equipment Tool, UView Airlift™ Cooling System Refill 399-550000 or equivalent and follow tool's operating manual for specific assembly steps.

c. Choose an appropriate adapter cone that will fit the vehicle's radiator filler neck or reservoir tank.

d. Attach the adapter cone to the vacuum gauge.

e. Make sure the vacuum generator/venturi ball valve is closed and attach an airline hose (minimum shop air requirement of 80 PSI (5.5 bar) to the vacuum generator/venturi.

f. Position the adaptor cone/vacuum gauge assembly into the radiator filler neck or reservoir tank. Ensure that the adapter cone is sealed properly.

g. Connect the vacuum generator/venturi to the positioned adaptor cone/vacuum gauge assembly.

h. Open the vacuum generator/venturi ball valve.

NOTE: Do not bump or move the assembly as it may result in loss of vacuum. Some radiator overflow hoses may need to be clamped off to obtain vacuum.

Service Procedure [Continued]

i. Let the system run until the vacuum gauge shows a good vacuum through the cooling system. Refer to the tool's operating manual for appropriate pressure readings.

NOTE: If a strong vacuum is being created in the system, it is normal to see the radiator hoses collapse.

j. Close the vacuum generator/venturi ball valve.

k. Disconnect the vacuum generator/venturi and airline from the adaptor cone/vacuum gauge assembly.

l. Wait approximately 20 seconds, if the pressure readings do not move, the system has no leaks. If the pressure readings move, a leak could be present in the system and the cooling system should be checked for leaks and the procedure should be repeated.

m. Place the tool's suction hose into the coolant's container.

NOTE: Ensure there is a sufficient amount of coolant, mixed to the required strength/protection level available for use. For best results and to assist the refilling procedure, place the coolant container at the same height as the radiator filler neck. Always draw more coolant than required. If the coolant level is too low, it will pull air into the cooling system which could result in airlocks in the system.

n. Connect the tool's suction hose to the adaptor cone/vacuum gauge assembly.

o. Open the suction hose's ball valve to begin refilling the cooling system.

p. When the vacuum gauge reads zero, the system is filled.

NOTE: On some remote pressurized tanks, it is recommended to stop filling when the proper level is reached.

Service Procedure [Continued]

q. Close the suction hose's ball valve and remove the suction hose from the adaptor cone/vacuum gauge assembly.

r. Remove the adaptor cone/vacuum gauge assembly from the radiator filler neck or reservoir tank.

s. With heater control unit in the HEAT position, operate the engine with container cap in place.

t. After engine has reached normal operating temperature, shut the engine off and allow it to cool. When engine is cooling down, coolant will be drawn into the radiator from the pressure container.

u. Add coolant to the recovery bottle/container as necessary. **Only add coolant to the container when the engine is cold. Coolant level in a warm engine will be higher due to thermal expansion.** Add necessary coolant to raise container level to the COLD MINIMUM mark after each cool down period.

v. Once the appropriate coolant level is achieved, attach the radiator cap or reservoir tank cap.

2. Start and warm the engine until cooling fan comes on and check for leaks.

3. Complete Proof of Corrections Form for California residents.

4. Return the vehicle to the customer.

Complete Proof of Correction Form for California Residents

This recall is subject to the **State of California Registration Renewal/Emissions Recall Enforcement Program**. Complete a Vehicle Emission Recall Proof of Correction Form **(Form No. 81-016-1053)** and **supply it to vehicle owners residing in the state of California** for proof that this recall has been performed when they renew the vehicle registration.

Process Steps to obtain the California Proof of Correction form:

a. Access the "**DealerCONNECT**" website.

b. Select the "**Service**" tab.

c. Under the "**Publications**" heading, select the "**ePublishing**" link.

d. Sign in using your **Dealer Code** and **Password**.

e. Select the "**Proof of Correction form**".

Completion Reporting and Reimbursement

Claims for vehicles that have been serviced must be submitted on the DealerCONNECT Claim Entry Screen located on the Service tab. Claims paid will be used by FCA to record recall service completions and provide dealer payments.

Use one of the following labor operation numbers and time allowances:

	Labor Operation Number	Time Allowance
Check fault Codes and replace EGR Cooler	25-W7-91-82	1.6 hours
Check fault Codes, Intake Manifold Inspection leak test and Replace EGR Cooler	25-W7-91-83	1.8 hours
Check Fault Codes, Intake Manifold Inspection leak test, and Replace EGR Cooler and Intake Manifold	25-W7-91-84	4.6 hours

Related Operation

[redacted] Handling Fee for Inspecting Paint Mark on Fuel Injection Pump Cover **ONLY TO BE USED ON** Service Engine Replacement to close recall.

95-23-30-57

Floor Plan Reimbursement Calculate See Below 95-95-95-97

Floor Plan Reimbursement represents the vehicle's average daily allowance (see table below) multiplied by the number of days the vehicle was in dealer inventory and not available for sale. This reimbursement is limited to the number of days from the date of the stop sale to the date that the remedy was made available. Note: If the vehicle was received by your dealership (KZX date) AFTER the stop sale date, you will use the KZX date instead of the stop sale date. For this Recall, the stop sale was initiated on **11/19/2020** and the remedy was made available on **03/04/2021**, therefore, the number of days cannot exceed **104 days.**

Vehicle	Average Daily Allowance
2018 (WK) Jeep Grand Cherokee	[redacted]

NOTE: See the Warranty Administration Manual, Recall Claim Processing Section, for complete recall claim processing instructions.

Dealer Notification

To view this notification on DealerCONNECT, select "Global Recall System" on the Service tab, then click on the description of this notification.

Owner Notification and Service Scheduling

All involved vehicle owners known to FCA are being notified of the service requirement by first class mail. They are requested to schedule appointments for this service with their dealers. A generic copy of the owner letter is attached.

Vehicle Lists, Global Recall System, VIP and Dealer Follow Up

All involved vehicles have been entered into the DealerCONNECT Global Recall System (GRS) and Vehicle Information Plus (VIP) for dealer inquiry as needed.

GRS provides involved dealers with an updated VIN list of their incomplete vehicles. The owner's name, address and phone number are listed if known. Completed vehicles are removed from GRS within several days of repair claim submission.

To use this system, click on the **"Service"** tab and then click on **"Global Recall System."** Your dealer's VIN list for each recall displayed can be sorted by: those vehicles that were unsold at recall launch, those with a phone number, city, zip code, or VIN sequence.

Dealers must perform this repair on all unsold vehicles *before* retail delivery. Dealers should also use the VIN list to follow up with all owners to schedule appointments for this repair.

Recall VIN lists may contain confidential, restricted owner name and address information that was obtained from the Department of Motor Vehicles of various states. Use of this information is permitted for this recall only and is strictly prohibited from all other use.

Additional Information

If you have any questions or need assistance in completing this action, please contact your Service and Parts District Manager.

Customer Services / Field Operations
FCA US LLC

This notice applies to your vehicle,

[Model Year and Model]
VIN XXXXXXXXXXXXXXXXX

W79/NHTSA 20V-699

LOGO

VEHICLE PICTURE

YOUR SCHEDULING OPTIONS

1. **RECOMMENDED OPTION**
   Call your authorized Chrysler / Dodge / Jeep® / RAM Dealership

2. **Call the FCA Recall Assistance Center at 1-800-853-1403. An agent can confirm part availability and help schedule an appointment**

3. **Visit recalls.mopar.com, scan the QR code below, or download the Mopar Owner's Companion App.**

QR Code

Get access to recall notifications, locate your nearest dealer, and more through this website or Mopar Owner's Companion App. You will be asked to provide your Vehicle Identification Number (VIN) to protect and verify your identity. The last eight characters of your VIN are provided above.

DEALERSHIP INSTRUCTIONS
Please reference Safety Recall W79.

IMPORTANT SAFETY RECALL

Diesel EGR Cooler

Dear [Name],

This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act.

FCA US has decided that a defect, which relates to motor vehicle safety, exists in certain [2014 – 2019 Model Year (WK) Jeep Grand Cherokee] vehicles.

It is extremely important to take steps now to repair your vehicle to ensure the safety of you and your passengers.

WHY DOES MY VEHICLE NEED REPAIRS?

The Exhaust Gas Recirculation (EGR) cooler on your vehicle [1] may be susceptible to thermal fatigue. Thermal fatigue may cause the cooler to crack internally over time. An EGR cooler with an internal crack will introduce pre-heated, vaporized coolant to the EGR system while the engine is running. In certain circumstances, this mixture interacts with other hydrocarbons and air in the system, potentially resulting in combustion within the intake manifold, which may lead to a vehicle fire. **A vehicle fire may increase the risk of injury to occupants and persons outside of the vehicle, as well as property damage.**

HOW DO I RESOLVE THIS IMPORTANT SAFETY ISSUE?

FCA US will repair your vehicle [2] free of charge (parts and labor). To do this, your dealer will replace the EGR cooler with a new EGR cooler that is not susceptible to thermal fatigue. In the event the intake manifold is damaged, the intake manifold will also be replaced. The estimated repair time is about 2 hours. However, additional time will be necessary if the Intake Manifold needs to be replaced. In addition, your dealer will require your vehicle for proper check-in, preparation, and check-out during your visit, which may require more time. Your time is important to us, so we recommend that you schedule a service appointment to minimize your inconvenience. Please bring this letter with you to your dealership.

TO SCHEDULE YOUR FREE REPAIR,
CALL YOUR CHRYSLER, DODGE, JEEP OR RAM DEALER TODAY

CALIFORNIA RESIDENTS

The State of California requires the completion of emission recall repairs prior to vehicle registration renewal. Your dealer will provide you with a Vehicle Emission Recall Proof of Correction Form after the Emission Recall service is performed. Be sure to save this form since the California Department of Motor Vehicles may require that you supply it as proof that the Emission Recall has been performed.

In order to ensure your full protection under the emissions warranty provisions, it is recommended that you have your (vehicle or engine) serviced as soon as possible. Failure to do so could be determined as lack of proper maintenance of your (vehicle or engine).

WHAT IF I ALREADY PAID TO HAVE THIS REPAIR COMPLETED?

If you have already experienced this specific condition and have paid to have it repaired, you may visit **www.fcarecallreimbursement.com** to submit your reimbursement request online. [3] Once we receive and verify the required documents, reimbursement will be sent to you within 60 days. If you have had previous repairs performed and/or already received reimbursement, you may still need to have the recall repair performed.

We apologize for any inconvenience, but are sincerely concerned about your safety. Thank you for your attention to this important matter.

Customer Assistance/Field Operations
FCA US LLC

FIAT CHRYSLER AUTOMOBILES

Mr. Mrs. Customer
1234 Main Street
Hometown, MI 48371

[1] If you no longer own this vehicle, please help us update our records. Call the FCA Recall Assistance Center at 1-800-853-1403 to update your information.

[2] If your dealer fails or is unable to remedy this defect without charge and within a reasonable time, you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Ave., S.E., Washington, DC 20590, or you can call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY 1-800-424-9153), or go to safercar.gov.

[3] You can also mail in your original receipts and proof of payment to the following address for reimbursement consideration: FCA Customer Assistance, P.O. Box 21-8004, Auburn Hills, MI 48321-8007, Attention: Recall Reimbursement.

Note to lessors receiving this recall notice: Federal regulation requires that you forward this recall notice to the lessee within 10 days.