STAR ONLINE PUBLICATION

Case Number: S2607000002

Release Date: February 2026

Symptom/Vehicle Issue: Hemi Water Pump Coolant Leak Inspection

Models: 2023 - 2026 – Ram 3500 (D2), 3500 Cab Chassis (DD), 3500 Cab Chassis (DF), 2500 (DJ), 4500/5500 Cab Chassis (DP), 1500 (DT), Cab Chassis MEX (DX), Wrangler (JL), Durango (WD), Grand Cherokee (WL), Wagoneer/Grand Wagoneer (WS), Challenger (LA), Charger (LB), Charger (LD), 300 (LX)

Customer Complaint/Technician Observation: The customer's complaint may include coolant odor or observation of fluid leakage under the vehicle.

Discussion: REVIEW THE FOLLOWING INSPECTION POINTS TO IDENTIFY ALL POTENTIAL LEAK SOURCES IN THE ENGINE COMPARTMENT BEFORE PERFORMING PARTS REPLACEMENT.

Symptom/Vehicle Issue: Suspected Engine Coolant Leak

Check the coolant level of the suspected vehicle before starting the engine:

- If the coolant level is significantly reduced:
  - Perform visual inspection of the entire engine cooling components using UV light (including all cooling system hoses, hot bottle/coolant reservoir/expansion tank, radiator, HVAC heaters, etc):
  - If the leak source is identified, please proceed with the leaked component replacement.

    NOTE: If water pump weep hole has dry coolant traces, please clean these traces with a towel, and proceed with the Pressurized Coolant System

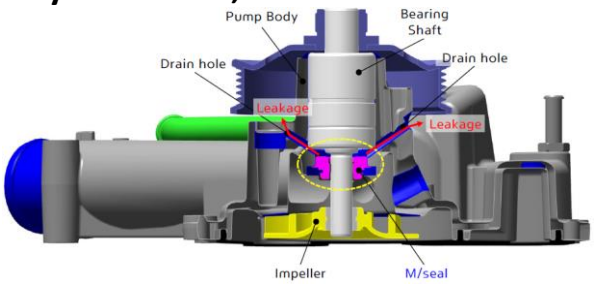
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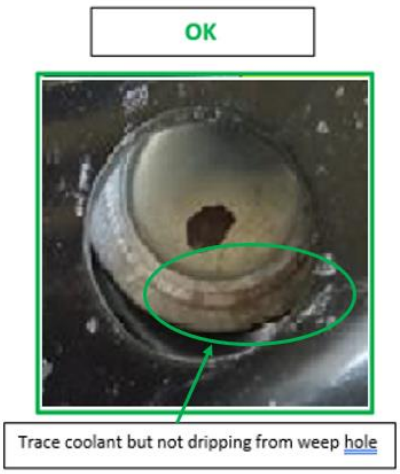
Inspection process in the Cooling Diagnosis and Testing Procedures found in Service Library.

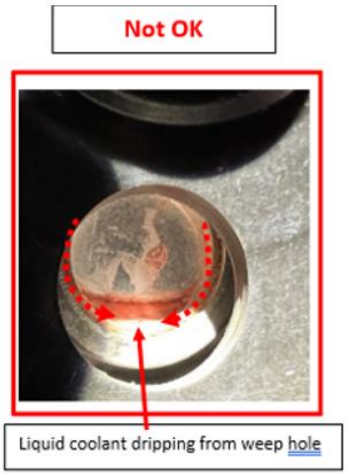
*****NOTE: Some coolant residues may be found at the water pump weep hole plug area which may be normal, but coolant should not be dripping from this location.**





*****NOTE: The presence of coolant residue in the weep hole does not indicate that the pump is bad. The system pressurization test must be performed to make that determination.**





Upon initial inspection, trace coolant or residue may be found at the weep plug. The presence of trace coolant does not necessarily indicate a failed pump. The presence of **liquid** coolant is

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unacceptable at any time. If liquid coolant is observed at the weep plug or dripping from the weep hole during initial inspection or during the pressurization test, replace the pump.

- If the leak source is not identified or it is not clear, please proceed with Pressurized Coolant System Inspection process in the Cooling Diagnosis and Testing Procedures found in Service Library.

- If the coolant level is OK, proceed with identifying coolant traces and clean the area that has them with a towel:
    - If the towel is continuously getting wet (active leak) you have identified the leak source. Please proceed with the leaked component replacement.
    - If the towel is not getting continuously wet when cleaning, the coolant leak is inactive. Proceed with the Pressurized Coolant System Inspection process in the Cooling Diagnosis and Testing Procedures found in Service Library.

Proceed with the Pressurized Coolant System Inspection process in the Cooling Diagnosis and Testing Procedures found in Service Library.

Perform visual inspection of the entire cooling system under pressure using UV light.

NOTE: If the vehicle has been filled with MOPAR 10yr coolant (purple), the coolant will glow orange under UV light. If the coolant fluorescence has worn off or if unsure about what coolant is in use, add Leak Detection Additive to the cooling system as directed in the Cooling Diagnosis and Testing Procedures (Coolant Leaks) found in Service Library before performing UV light inspection.

The visual inspection for leaks should include the following coolant system components:

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- Radiator
- Hot Bottle/Coolant Reservoir/Expansion Tank
- Front Cover
- Cylinder Head Gasket
- Cylinder Block
- Cylinder Head
- EGR Cooler (if equipped)
- EGR Coolant Tubes (if equipped)
- Engine Oil Cooler (if equipped)
- Engine Oil Cooler Coolant Tubes (if equipped)
- HVAC Heaters
- HVA Heaters Coolant Lines
- Transmission Oil Cooler (TOC) Coolant Lines (if equipped)
- All Cooling System Hoses, Gaskets and Connections
- Water Pump Assembly:
    - Water Pump Housing
    - Water Pump Weep Hole
    - Water Pump Heater Tube
    - Water Pump Gasket
    - Water Pump Pipe
    - Engine Coolant Temperature Sensor
    - Thermostat Housing & Gasket

NOTE: If coolant residue is found at lower areas in the engine compartment, inspect the cooling system parts located directly above to determine if they are the leak source.

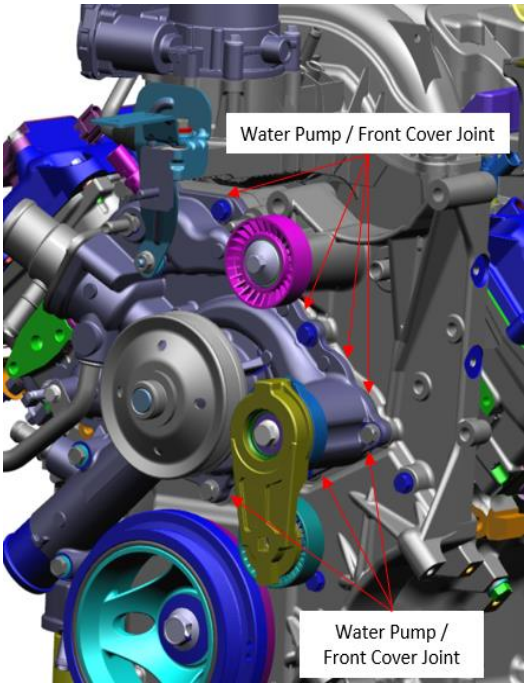
WATER PUMP INSPECTION DURING PRESSURIZED COOLANT SYSTEM INSPECTION

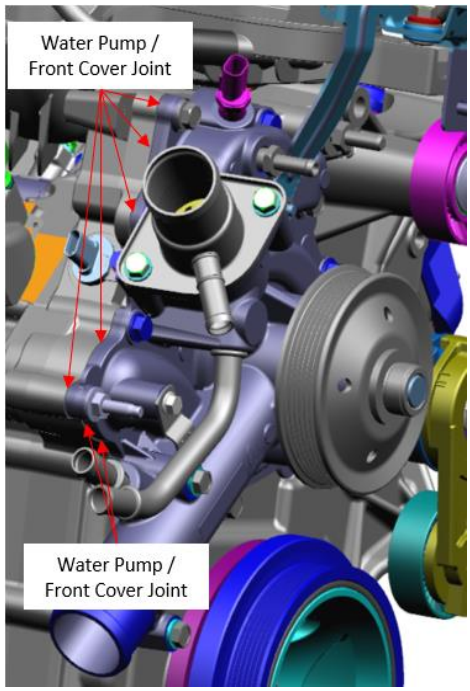
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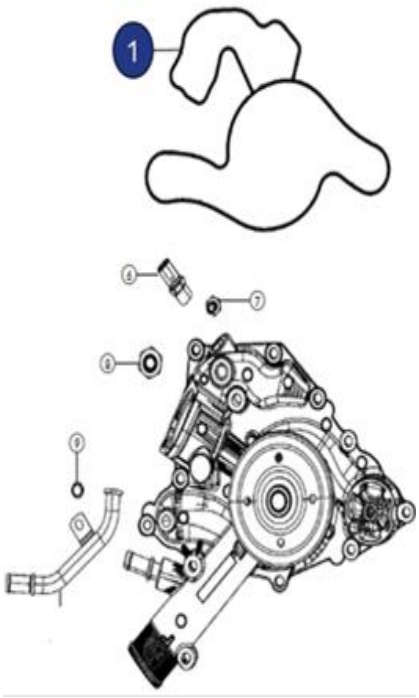
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Inspect water pump assembly components as follow:

- **Water pump gasket:** Check the water pump / front cover joint (all the perimeter) for leaks or coolant residue. If leak is identified, please replace only the gasket since it is a serviceable part.



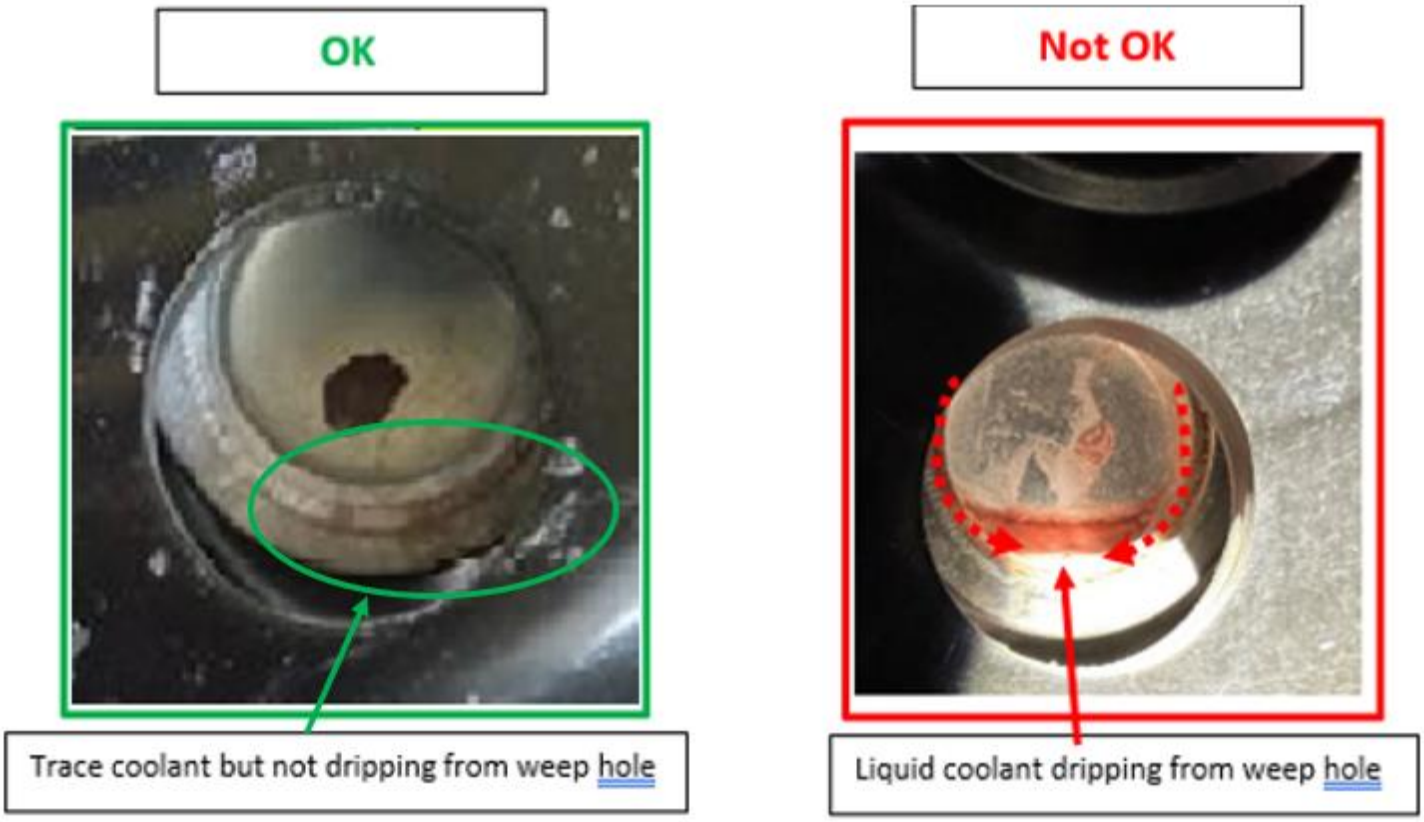




- **Water pump weep hole:** Check the water pump weep hole for leaks. If active leak is identified (coolant is dripping from weep hole), please replace water pump assembly.

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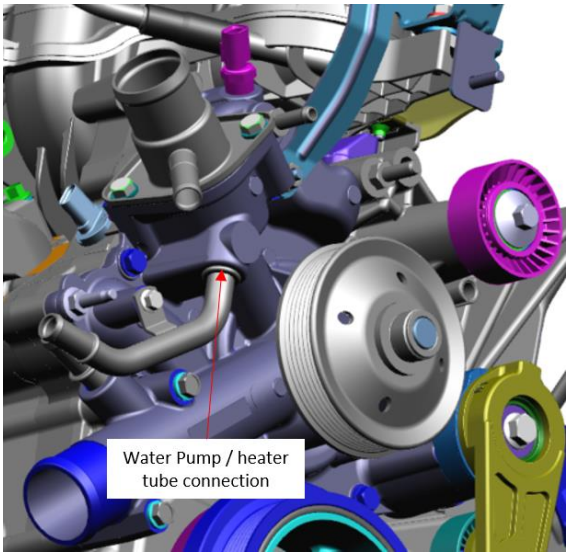
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- **Water pump heater tube:** Check the water pump / heater tube connection for leaks. If leak is identified, please replace only the Heater Tube since it is a serviceable part.

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OK HEATER TUBE	NOK HEATER TUBE
 	 

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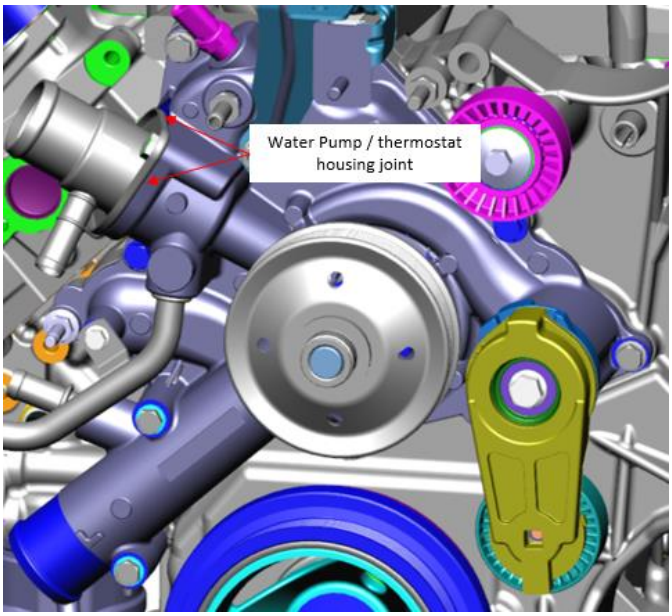
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- **Thermostat Housing & Gasket:** Check the water pump / thermostat housing joint for leaks. If leak is identified in this joint, please remove thermostat housing to inspect the housing and thermostat gasket:

    - If the housing flange is damaged and the thermostat gasket is ok, please replace only the housing since it is a serviceable part. Note: Please reinstall thermostat and gasket.

    - If the housing is ok and the thermostat gasket is damaged, please replace only the thermostat with its gasket since it is a serviceable part. Note: Please reinstall thermostat housing.

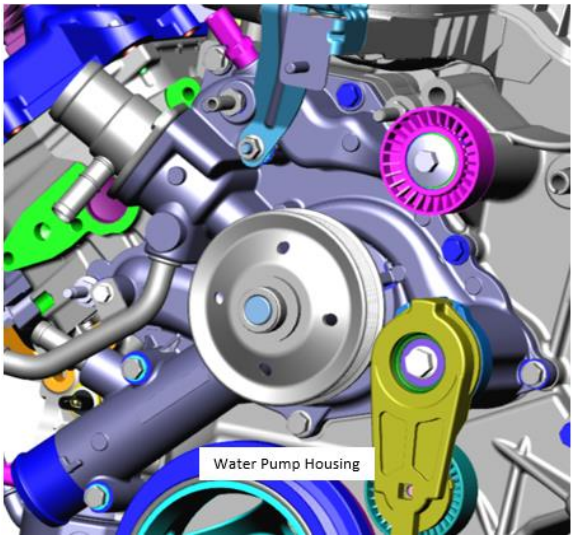
    - If the housing and thermostat gasket are damaged, please replace both components since they are serviceable parts.



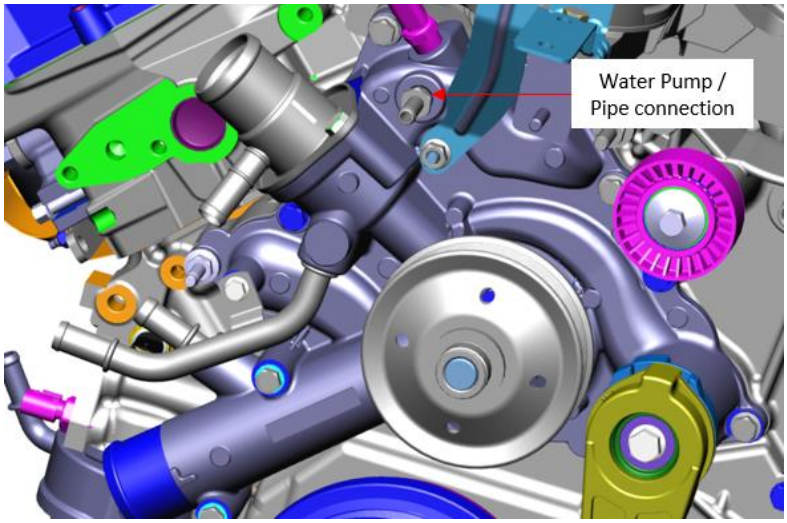
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- **Water pump housing:** Check the water pump housing (including area behind pulley) for leaks or coolant residue. If leak is identified, please replace only the gasket since it is a serviceable part.



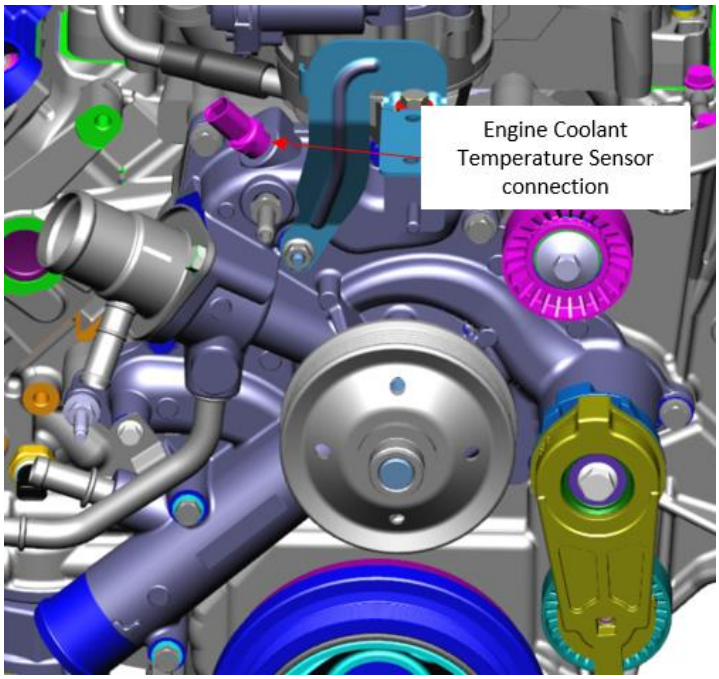
- **Water pump pipe:** Check the water pump pipes connection for leaks. If leak is identified, please replace only the pipe since it is serviceable part.



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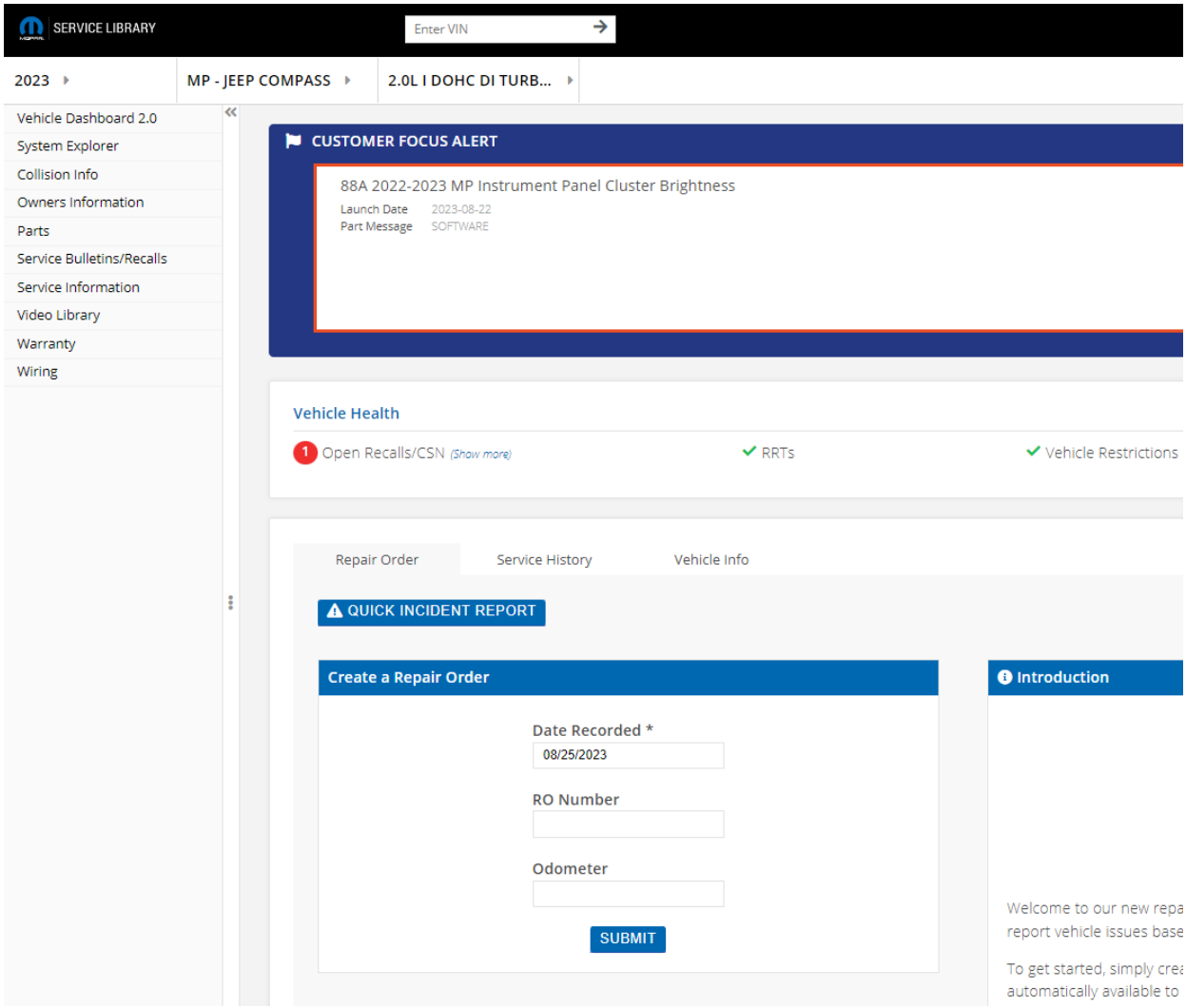
- **<u>Engine Coolant Temperature Sensor:</u>** Check the engine coolant temperature sensor connection for leaks. If leak is identified, please replace only the engine coolant temperature sensor since it is serviceable part.



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When the source of the leak is identified, please submit a DID-I using the Quick Incident Report (QIR) button in Service Library. Please include pictures showing the source of the leak. See a screen shot below from the QIR system in Service Library for reference.



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