



STAR ONLINE PUBLICATION



Case Number: S2208000205

Release Date: December 2022

Symptom/Vehicle Issue: Three Way Coolant Valve Hoses Misrouted. P0E80-00-Coolant Bypass Valve "B" Control Stuck Closed

Discussion: The customer may bring the vehicle in for a Check Engine Light. Upon scanning the vehicle for DTC's you may find P0E80-00-Coolant Bypass Valve "B" Control Stuck Closed. This DTC sets when the temperature difference between the Engine Coolant and Electric Coolant Heater Inlet (ECH) is greater than 40°F. This may be caused by misrouting of the Three Way Coolant Valve hoses.

Diagnosis: Inspect coolant hoses that clamp to the Three Way Coolant Valve. The bottom two hoses should route coolant back to the dash and continue to run parallel and not cross each other. The upper hose should be F shaped and lower portion of it has a quick connect that routes coolant rearward in vehicle back to electric cabin heater.

It has been found that the F shaped hose attached to lower port of valve and the other two hoses may have shifted one position each.

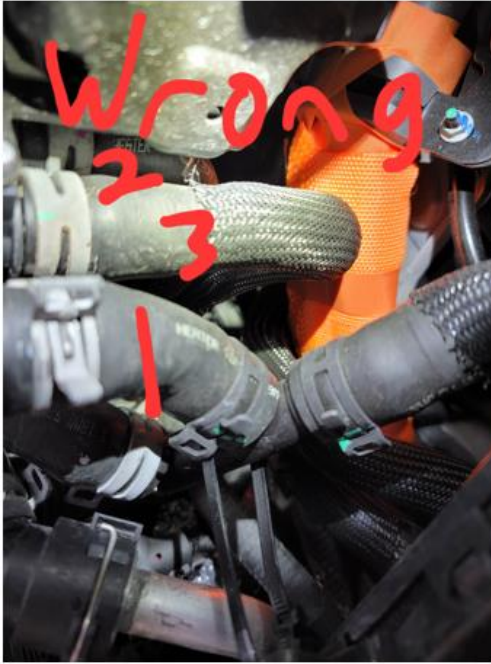
Review Images on Page 2 to determine current location of hoses 1, 2 and 3.

This document does not authorize warranty repairs. This communication documents a record of past experiences. STAR Online does not provide any conclusions about what is wrong with the vehicle. Rather, it captures all previous cases known that appear to be similar or related to the vehicle symptom / condition. You are the expert, and you are responsible for deciding on the appropriate course of action.

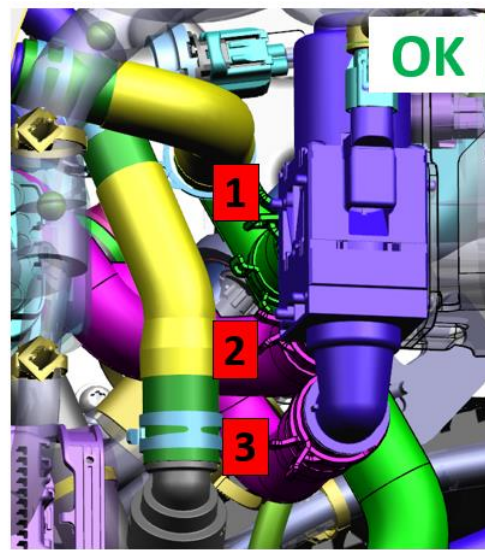
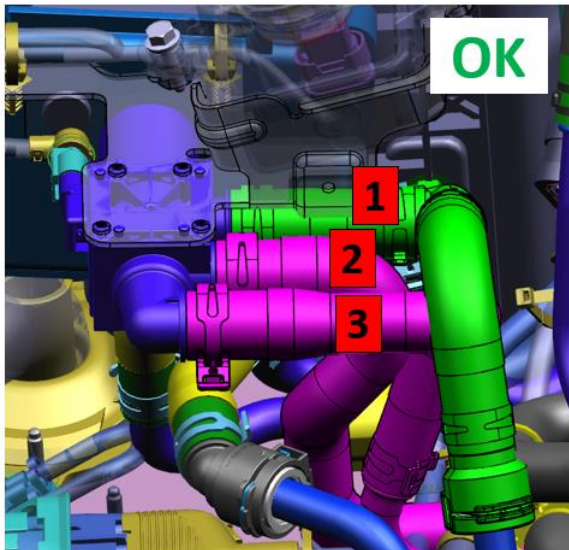
Contact STAR Center, or your Technical Assistance Center Via TechCONNECT or eCONTACT ticket if no solution is found



STAR ONLINE PUBLICATION



Commonly Found Misrouting VS Correct Routing



Correct Routing of Hoses 1,2,3 Per CAD Modeling

This document does not authorize warranty repairs. This communication documents a record of past experiences. STAR Online does not provide any conclusions about what is wrong with the vehicle. Rather, it captures all previous cases known that appear to be similar or related to the vehicle symptom / condition. You are the expert, and you are responsible for deciding on the appropriate course of action.

Contact STAR Center, or your Technical Assistance Center Via TechCONNECT or eCONTACT ticket if no solution is found



STAR ONLINE PUBLICATION



Repair: If misrouting of the coolant hoses is found, proceed with the repair procedure below. If misrouting is not identified, this SOL does not apply.

Tools/Parts Required:

Hose Clamp pliers

Clean Drain Pan

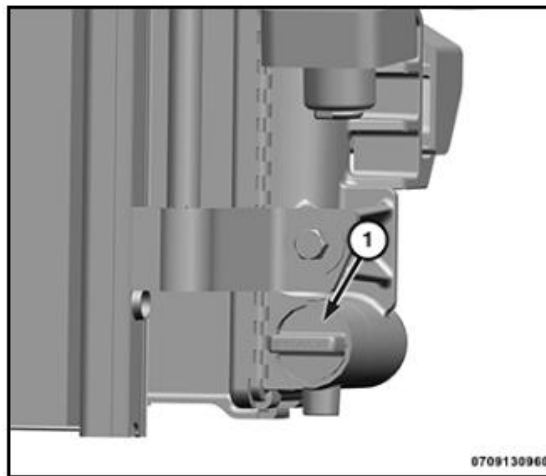
Shop Towels

1 Gallon bottles of Mopar 50/50 coolant - P/N 68163849AB

Vac-u-Fill Coolant exchange apparatus or similar

Step 1:

- A. Drain the high temperature cooling system. Reference Service Library: Engine Cooling Standard Procedure (DRAINING)
- B. 1. Remove the front air dam (Refer to 13 - Frame and Bumpers/Bumpers/AIR DAM, Front/Removal and Installation).
- C. 2. Verify the system is not pressurized and open the draincock.
- D. 3. If equipped and necessary, remove the cylinder block drain plug(s).



1 - Draincock

Step 2: Using hose clamp pliers, Remove all 3 hoses from the Three Way Coolant Valve.

This document does not authorize warranty repairs. This communication documents a record of past experiences. STAR Online does not provide any conclusions about what is wrong with the vehicle. Rather, it captures all previous cases known that appear to be similar or related to the vehicle symptom / condition. You are the expert, and you are responsible for deciding on the appropriate course of action.

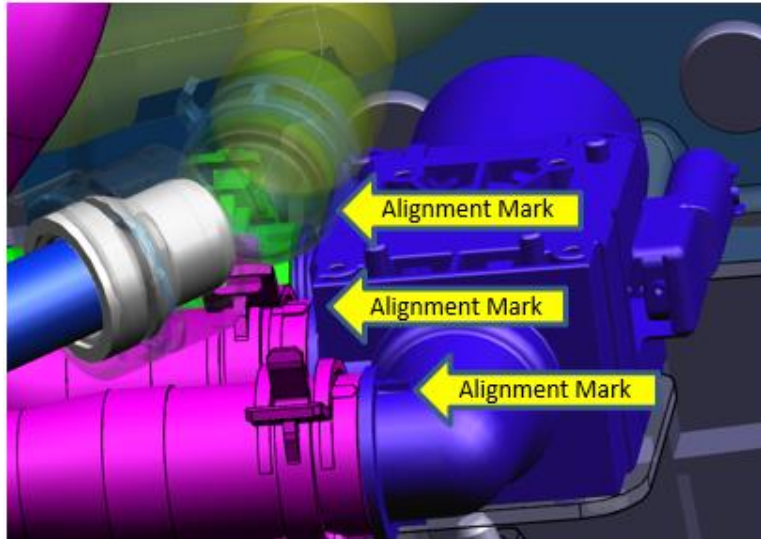
Contact STAR Center, or your Technical Assistance Center Via TechCONNECT or eCONTACT ticket if no solution is found



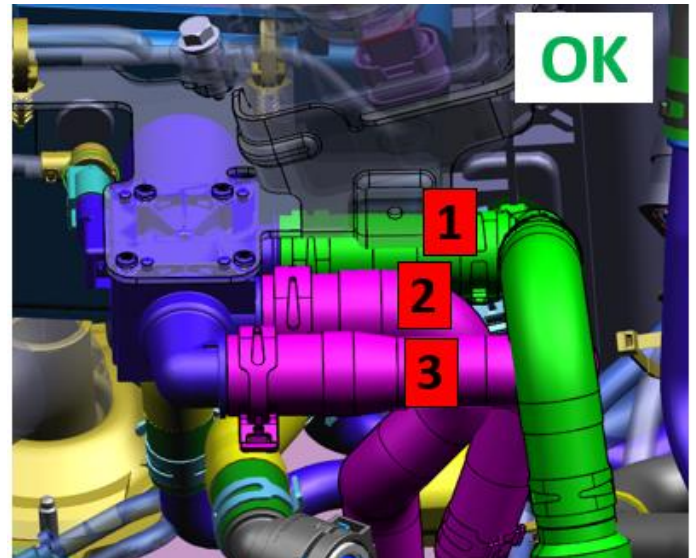
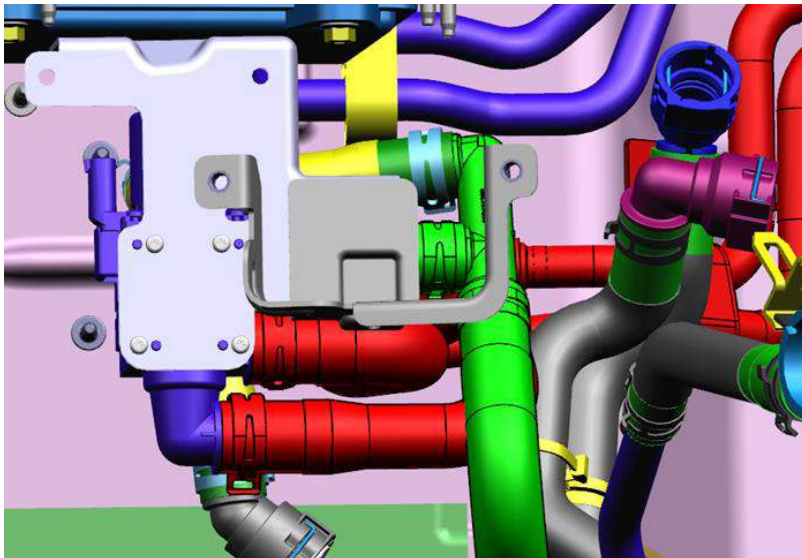
STAR ONLINE PUBLICATION



Step 3: Install all 3 hoses to the correct coolant valve ports. Use the hose alignment marks on the backside of the 3-way valve to confirm each hose is orientated correctly.



Alignment Marks



Correct Routing of The Coolant Hoses

This document does not authorize warranty repairs. This communication documents a record of past experiences. STAR Online does not provide any conclusions about what is wrong with the vehicle. Rather, it captures all previous cases known that appear to be similar or related to the vehicle symptom / condition. You are the expert, and you are responsible for deciding on the appropriate course of action.

Contact STAR Center, or your Technical Assistance Center Via TechCONNECT or eCONTACT ticket if no solution is found

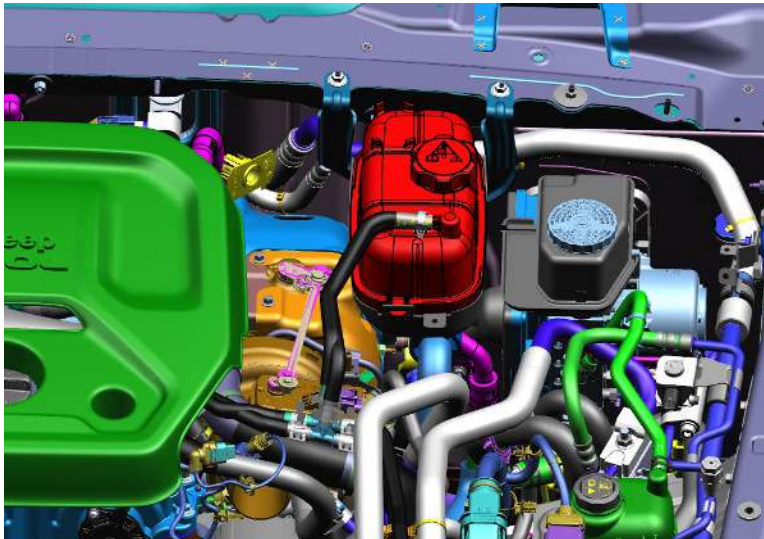


STAR ONLINE PUBLICATION



Step 4: Refill the high temperature cooling system. Coolant that was previously removed can be reused if it was kept clean.

- A. Locate the High Temperature Coolant Bottle.
- B. Connect vacuum coolant exchanger to the coolant bottle and draw a vacuum in the cooling system.
- C. Once adequate vacuum is achieved, refill the coolant to the max fill line.



High Temperature Coolant Bottle

Verification: Clear DTC's and test drive the vehicle. Confirm the P0E80-00 does not return.

This document does not authorize warranty repairs. This communication documents a record of past experiences. STAR Online does not provide any conclusions about what is wrong with the vehicle. Rather, it captures all previous cases known that appear to be similar or related to the vehicle symptom / condition. You are the expert, and you are responsible for deciding on the appropriate course of action.

Contact STAR Center, or your Technical Assistance Center Via TechCONNECT or eCONTACT ticket if no solution is found