



Technical Service Bulletin

| | |
|-----------------------------|------------------------------|
| GROUP HVAC | NUMBER 24-HA-001G |
| DATE OCTOBER 2024 | MODEL(S) SEE BELOW |

SUBJECT: REDUCED HEATER PERFORMANCE – TEMPERATURE CHECK & HEATER CORE REPLACEMENT

Description: Certain Genesis vehicles (listed below) equipped with Lambda-III 3.5T-GDI engines may exhibit reduced heater performance due to engine coolant deposits clogging the heater core. This bulletin provides instructions to verify the concern and to replace the front and rear heater core (if applicable).

Applicable Vehicles below equipped with Lambda-III 3.5T-GDI engines:

- 2021-2024MY G80 (RG3) produced from 07/25/2020 – 12/23/2023
- 2023-2024MY G90 (RS4) produced from 04/21/2022 – 12/19/2023
- 2022-2023MY GV70 (JK1) produced from 03/10/2021 – 05/31/2023
- 2024MY GV70 (JK1A) produced from 05/25/2023 – 12/29/2023
- 2021-2024MY GV80 (JX1) produced from 10/16/2020 – 12/30/2023

Required Equipment/Supplies:

| Name | Figure | Remarks |
|-------------|---|----------------------|
| Thermometer |  | Standard Shop Supply |

Examples Include:

- Outset F800 or Taylor Instant-Read Digital Thermometer
- ThermoPro or KIZEN Infrared Thermometer Temperature Gun

Parts Information:

| Model | Part Name | Part Number | Remarks | Coolant Capacity* |
|--------------------------------------|---------------------------------|----------------|--------------------------|-------------------|
| G80 (RG3) | Front Heater Core | 97138-T1000QQH | QTY: 1 | – |
| G90 (RS4) | | 97138-T4000QQH | | – |
| GV70 (JK1, JK1A) | | 97138-AR000QQH | | – |
| GV80 (JX1) (5-Passenger) | | 97138-T6000QQH | | – |
| GV80 (JX1) (7-Passenger) | | 97138-T6300QQH | | – |
| GV80 (JX1) (7-Passenger) | Rear Heater Core | 97138-T6500QQH | | – |
| G80 (RG3) | Pink Coolant | 00232-19098WAR | Coolant QTY: 6 Quarts | 11.6 Quarts |
| G90 (RS4) | | | | 10.4 Quarts |
| GV70 (JK1, JK1A) | | | | 10.2 Quarts |
| GV80 (JX1) (5-Passenger) | | | 11.6 Quarts | |
| GV80 (JX1) (7-Passenger) | | | Coolant QTY: 9 Quarts | 16.4 Quarts |
| ALL MODELS | Front Pillar Trim Mounting Clip | 85815-C1100 | QTY: 2 | - |
| GV80 (JX1) G80 (RG3) G90 (RS4) | Front Pillar Fastener Clip | 82315-2W000 | QTY: 2 | - |
| GV70 (JK1, JK1A) | | 82315-2P000 | | |
| ALL MODELS | Steering Wheel Lock Bolt | 56115-B1000 | QTY:1 | - |
| ALL MODELS | Evaporator Core O-Ring | 97141-4H900 | QTY: 2 | |

***NOTE:** Do **NOT** use 100% full strength anti-freeze. Prepare coolant mixed with distilled/filtered water to refill the cooling system. (35 to 50% antifreeze, diluted with distilled water)

Warranty Information:

| Model | Op. Code | Operation | Op. Time | Causal Part | Nature Code | Cause Code |
|--|----------|---|----------|--|-------------|------------|
| G80 (RG3), G90 (RS4), GV70 (JK1, JK1A), GV80 (JX1) (5-Passenger) | 40D158R0 | Front Heater Performance Inspection | 0.3 M/H | 97138-T1000 (RG3) 97138-T4000 (RS4) 97138-AR000 (JK1 / JK1A) 97138-T6000 (JX1 5P) | IB2 | ZZ3 |
| GV80 (JX1) (7-Passenger) | 40D158R1 | Front and Rear Heater Performance Inspection | 0.4 M/H | 97138-T6300 | | |
| G80 (RG3) | 40D158R2 | Front Heater Performance Inspection and Front Heater Core Replacement | 5.2 M/H | 97138-T1000 | | |
| G90 (RS4) | 40D158R3 | | 5.4 M/H | 97138-T4000 | | |
| GV70 (JK1) | 40D158R4 | | 5.1 M/H | 97138-AR000 | | |
| GV70 (JK1A) | 40D158R5 | | 5.1 M/H | 97138-AR000 | | |
| GV80 (JX1) (5-Passenger) | 40D158R6 | | 5.0 M/H | 97138-T6000 | | |
| GV80 (JX1) (7-Passenger) | 40D158R7 | Front and Rear Heater Performance Inspection and Front Heater Core Replacement | 5.1 M/H | 97138-T6300 | | |
| | 40D158R8 | Front and Rear Heater Performance Inspection and Rear Heater Core Replacement | 2.1 M/H | 97138-T6500 | | |
| | 40D158R9 | Front and Rear Heater Performance Inspection and Front and Rear Heater Core Replacement | 6.1 M/H | 97138-T6300 | | |

NOTE 1: Submit claim on Claim Entry Screen as “Campaign” type.

NOTE 2: This TSB includes inspection and repair validation photos. Op times include VIN, Mileage, and Repair validation photo(s) as outlined in the Digital Documentation Policy.

NOTE 3: The incident parts are subject to callback through the normal Warranty Technical Center (WTC) parts return process. **Claim is subject to debit if the part is not returned.**

NOTE 4: If a part is found in need of replacement while performing this TSB and the affected part is still under warranty, submit a separate claim using the same repair order. If the affected part is out of warranty, submit a Prior Approval request for goodwill consideration prior to performing the work.

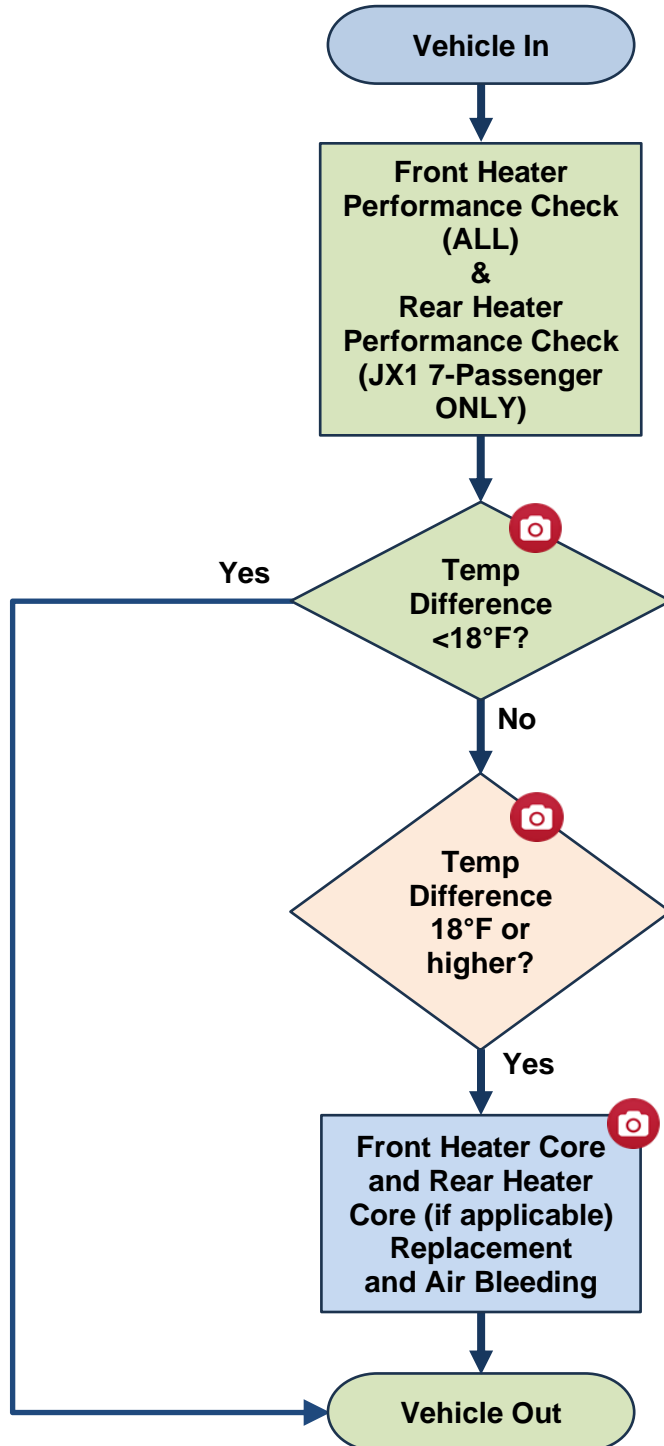
Service Procedure:

STUI



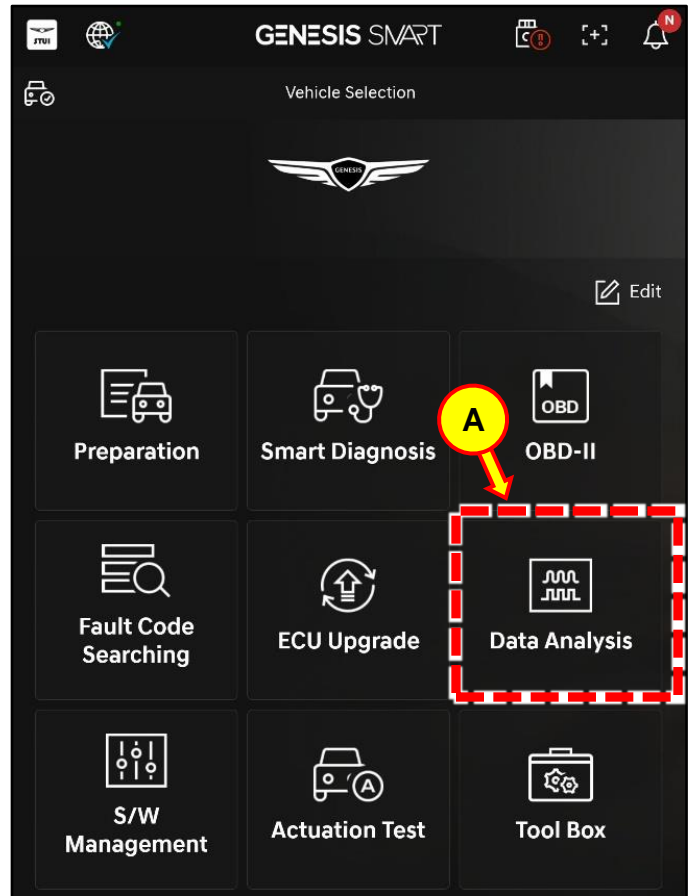
This TSB includes Repair validation photos. Refer to the latest Warranty Digital Documentation Policy for requirements.

Service Procedure Workflow

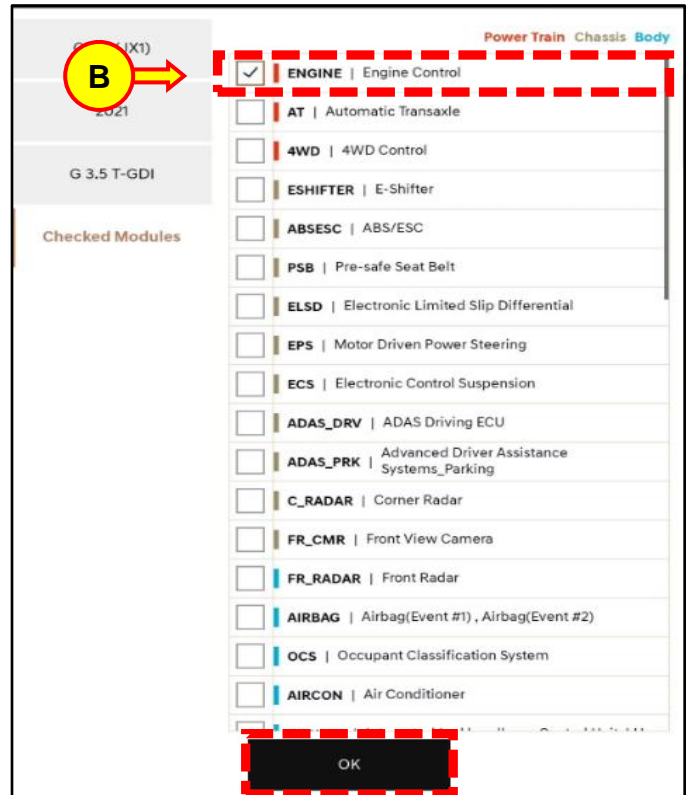


Heater Temperature Difference Check - Preparation

1. Connect GDS.
2. Turn **ON** the IG switch.
3. Select **Data Analysis** (A) on the Genesis Smart home screen.



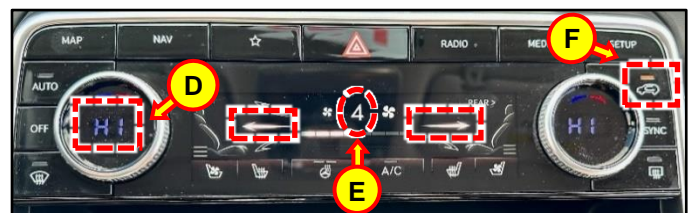
4. Select **ENGINE** (B) and press **OK**.



5. Check the **Water Temperature Value (C)**.
6. Maintain the engine RPM at 2000-3000 until the Water Temperature Value is 194°F (90°C) or higher.

| Sensor Name | Value | Unit | Link Up |
|---|--------|------|---------|
| <input checked="" type="checkbox"/> Water Temperature | 194.0 | °F | |
| <input type="checkbox"/> Engine Running Detected | ON | - | |
| <input type="checkbox"/> Battery Voltage | 13.9 | V | |
| <input type="checkbox"/> Intake Manifold Pressure | 333 | hPa | |
| <input type="checkbox"/> Throttle Position | 2.4 | % | |
| <input type="checkbox"/> Accelerator Pedal Position Sensor | 0.0 | % | |
| <input type="checkbox"/> Water Temperature at Start | 31.5 | °C | |
| <input type="checkbox"/> Cooling Fan - PWM | 9.8 | % | |
| <input type="checkbox"/> Intake Air Temperature Sensor | 33.8 | °C | |
| <input type="checkbox"/> Engine Oil Temperature | 82.5 | °C | |
| <input type="checkbox"/> Transmission Fluid Temperature Sensor | 39.0 | °C | |
| <input type="checkbox"/> Fuel Tank Pressure Value(Optional) | -2.7 | hPa | |
| <input type="checkbox"/> Fuel Level(Optional) | 43.5 | % | |
| <input type="checkbox"/> Ambient Temperature | 27.8 | °C | |
| <input type="checkbox"/> Ambient Pressure(Directly Measured or Estimated) | 555.7 | hPa | |
| <input type="checkbox"/> Engaged Gear In AT Vehicle(7-speed under) | P/N/R | - | |
| <input type="checkbox"/> A/C Pressure | 7396.0 | hPa | |
| <input type="checkbox"/> O2 Sensor Voltage Downstream Catalyst - Bank1 | 0.0 | V | |
| <input type="checkbox"/> Target Air Fuel Ratio - Bank1 | 0.9 | - | |
| <input type="checkbox"/> O2 Sensor Voltage Downstream Catalyst - Bank2 | 0.0 | V | |
| <input type="checkbox"/> Target Air Fuel Ratio - Bank2 | 0.9 | - | |

7. Set HVAC temperature to **HI (D)**, fan speed to **4 (E)**, recirculation mode **ON (F)**, and direct the airflow to the face vents.



For GV80 (JX1) 7-Passenger models, do the same settings for the 3rd row.



Heater Temperature Difference Check and Heater Core Replacement -
G80 (RG3), G90 (RS4), GV70 (JK1, JK1A), GV80 (JX1, 5-Passenger)

i Information

For 7-Passenger GV80 (JX1) vehicles, follow the procedure starting on page 9.

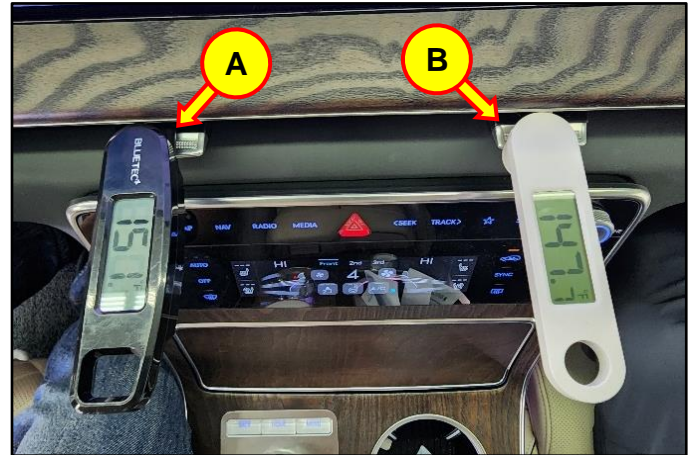
1. Using a thermometer, measure the temperatures at the front center vents on the driver side (A) and passenger side (B).

i Information

Allow adequate time for the vent temperatures to stabilize.

- If the temperature difference between the front center vents is less than 18°F, then **proceed to step 2** to take a picture of the temperature readings.
 - Use OP Code **40D158R0** to finish this inspection procedure after following step 2.
- If the temperature difference between the front center vents is 18°F or higher, **proceed to step 2** to take a picture of the temperature readings.
 - **Proceed to step 3 for front heater core replacement.**

Front Center Vents



- 2.

STUI



Using STUI, take a photo clearly showing the temperature readings on both thermometers with the last 6 digits of the VIN and the date of repair on a piece of paper.

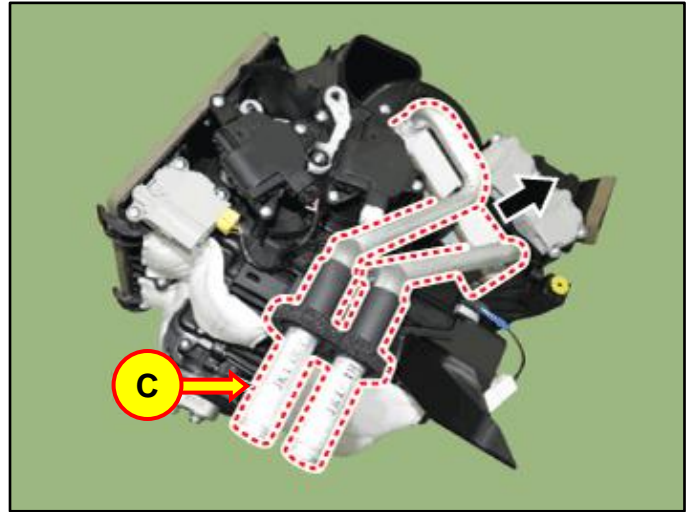
Upload the photo to STUI.



3. Replace the front heater core (C).

Refer to the shop manual:

- **Heating, Ventilation and Air Conditioning > Heater > Heater Core >**
 - **Replacement** OR
 - **Repair procedures** OR
 - **Removal and Installation**



- 4.

STUI



Using STUI, take a clear photo of the **OLD** heater core removed next to the **NEW** heater core on top of the box with the 'QQH' label showing with the last 6 digits of the VIN and the date of repair on a piece of paper.

Upload the photo to STUI.



5. Reinstall all components in reverse order of removal.
6. Perform air bleeding of the coolant.

Refer to the shop manual:

- **Engine Mechanical System > Cooling System > Coolant >**
 - **Replacement** OR
 - **Repair procedures** OR
 - **Refill**

7. Start the engine and confirm proper vehicle operation.

* [Integrated flow control valve (ITM) coolant filling]

This function opens up the coolant flow path in the engine with ITM and helps fill coolant.

=[CONDITION]

1. IG ON
2. Transmission position P / Parking brake ON
3. Vehicle speed 0km/h (0 mile/h)
4. Coolant temperature is 90°C or under

[OK] Button : Current coolant temperature check

[Cancel] Button : Optional function completed

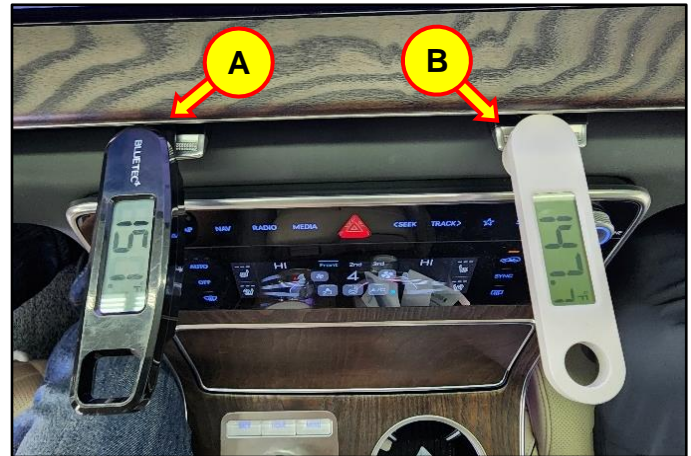
Heater Temperature Difference Check and Heater Core/Rear Heater Core Replacement - GV80 (JX1, 7-Passenger)

- Using a thermometer, measure the temperatures at the front center vents on the driver side (A) and passenger side (B).

***i* Information**

Allow adequate time for the vent temperatures to stabilize.

Front Center Vents



- Using a thermometer, measure the temperatures at the rear vents in the 3rd row on the LH (C) and RH (D) sides.
 - If the temperature difference between the vents in **both** locations – front center and rear/3rd row – is less than 18°F, then **proceed to step 3 and 4** to take a picture of the temperature readings.
 - Use OP Code **40D158R1** to finish this inspection procedure after following step 3 and 4.
 - If the temperature difference between the **front** center vents is 18°F or higher, replace the front heater core after following step 3.
 - Proceed to step 5 for front heater core replacement.**
 - If the temperature difference between the **rear** vents is 18°F or higher, replace the rear heater core after following step 4.
 - Proceed to step 6 for rear heater core replacement.**

Rear/3rd Row Vents



***i* Information**

If the temperature difference between the vents in both locations is 18°F or higher, replace **both** the front and rear heater core.

3.

STUI



Using STUI, take a photo clearly showing the temperature readings on both thermometers for the front vents with the last 6 digits of the VIN and the date of repair on a piece of paper.

Upload the photo to STUI.



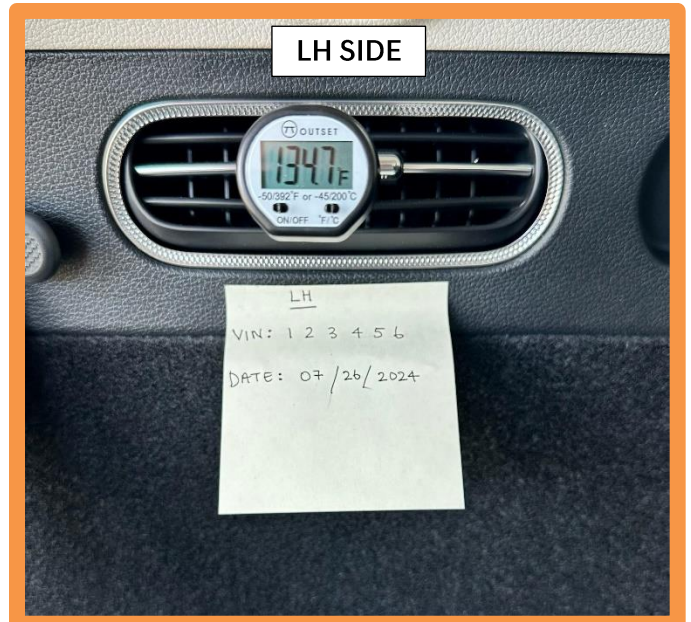
4.

STUI



Using STUI, take a photo clearly showing the temperature readings on both thermometers for the rear vents with either 'LH' or 'RH' notation, the last 6 digits of the VIN and the date of repair on a piece of paper.

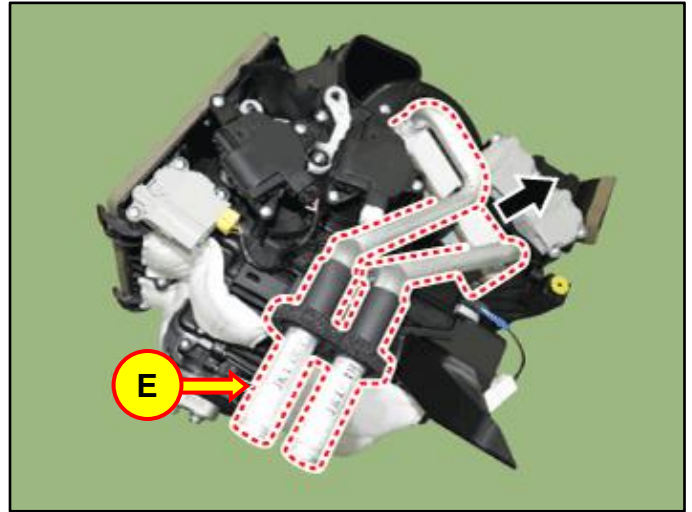
Upload the photo to STUI.



5. Replace the front heater core (E).

Refer to the shop manual:

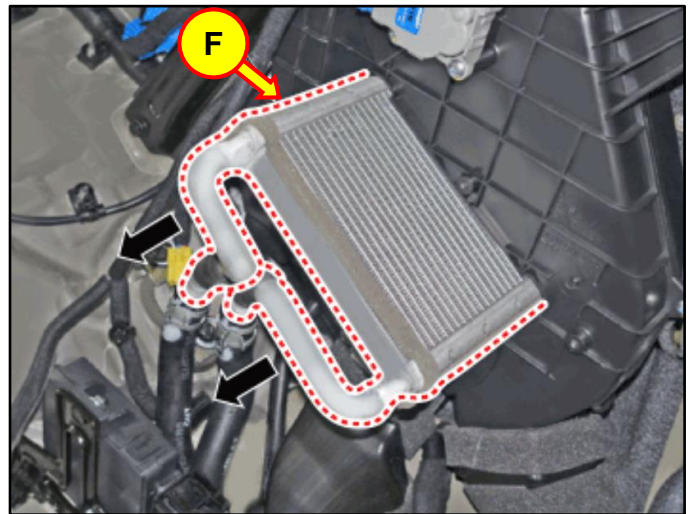
- Heating, Ventilation and Air Conditioning > Heater > Heater Core > Repair procedures



6. Replace the rear heater core (F).

Refer to the shop manual:

- Heating, Ventilation and Air Conditioning > Rear Air Conditioner > Rear Heater Core > Repair Procedures



i Information

To prevent coolant spillage inside the cabin when removing the rear heater core, **place an absorbent material in the surrounding area**. Discard absorbent material appropriately after repairs are completed.

- 7.

STUI



Using STUI, take a clear photo of the **OLD** front heater core removed next to the **NEW** front heater core on top of the box with the 'QQH' label showing with the last 6 digits of the VIN, 'Front' notation on the top, and the date of repair on a piece of paper.

Upload the photo to STUI.



8.

STUI



Using STUI, take a clear photo of the OLD rear heater core removed next to the NEW rear heater core on top of the box with the 'QQH' label showing with the last 6 digits of the VIN, 'Rear' notation on the top, and the date of repair on a piece of paper.

Upload the photo to STUI.



9. Reinstall all components in reverse order of removal.

10. Perform air bleeding of the coolant.

Refer to the shop manual:

- **Engine Mechanical System > Cooling System > Coolant > Repair procedures**

• [Integrated flow control valve (ITM) coolant filling]

This function opens up the coolant flow path in the engine with ITM and helps fill coolant.

•[CONDITION]

1. IG ON
2. Transmission position P / Parking brake ON
3. Vehicle speed 0km/h (0 mile/h)
4. Coolant temperature is 90°C or under

[OK] Button : Current coolant temperature check

[Cancel] Button : Optional function completed

11. Start the engine and confirm proper vehicle operation.