

 HYUNDAI
Technical Service Bulletin

GROUP

CAMPAIGN

NUMBER

25-01-023H

DATE

MARCH 2025

MODEL(S)

SEE BELOW

SUBJECT: EGR VALVE ASSEMBLY AND GASKET REPLACEMENT
(SERVICE CAMPAIGN 9B3)

This TSB supersedes 24-01-080H to remove the Crank Position Sensor (CKPS) from the Parts Information section on page 2, update the op codes for Sonata and Tucson models in the Warranty Information section on page 4, and add an "Information" box to step 9 on page 12 to carefully detach the plastic clip securing the Crankshaft Position Sensor (CKPS) wiring.

★ IMPORTANT

Dealers must perform this service campaign on all affected vehicles prior to customer retail delivery and whenever an affected vehicle is in the shop for any maintenance or repair.

Access the "Vehicle Information" screen via WebDCS to identify open campaigns.

Description: The exhaust gas recirculation (EGR) valve assembly in certain vehicles (listed below) may contain a sensor that was contaminated with solder flux during manufacturing, which could potentially result in an electrical short. An electrical short within the EGR valve could lead to a Malfunction Indicator lamp (MIL) illumination (P0405, P0642, P0652, P0404/P049D/P240F). Follow the information in this bulletin to replace the EGR valve assembly and gasket.

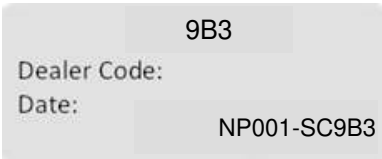


Applicable Vehicles (Certain):

- 2024MY Tucson (NX4) equipped with Theta 2.5 GDI and produced 01/17/2024–02/22/2024
- 2024MY Sonata (DN8) equipped with Theta 2.5 GDI and produced 02/06/2024–02/16/2024
- 2024MY Sonata Hybrid (DN8 HEV) equipped with Nu 2.0 GDI and produced 02/06/2024–02/24/2024

Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair

SUBJECT: EGR VALVE ASSEMBLY AND GASKET REPLACEMENT (SERVICE CAMPAIGN 9B3)**Parts Information:**

Vehicle	Part Name	Part Number	Remarks
Campaign Sticker	NP001-SC9B3	 9B3 Dealer Code: Date: NP001-SC9B3	Qty: 1 Apply to all vehicles regardless of state.
Vehicle Emission Recall - Proof of Correction Card	NP050-09006	 Vehicle Emission Recall - Proof of Correction	Qty: 1 Order only for states: CA, CO, CT, DE, ME, MD, MA, NJ, NY, OR, PA, RI, VT, WA
Sonata Hybrid (DN8 HEV)	EGR Valve Assembly	28400-2J310QQH	Qty: 1
	Gasket - EGR Pipe	28492-2J000QQH	Qty: 1
Sonata (DN8) & Tucson (NX4)	EGR Valve Assembly	28400-2S000QQH	Qty: 1
	Gasket - EGR Pipe	28493-2S040QQH	Qty: 1 (in)
		28493-2S030QQH	Qty: 1 (out)
	Coolant	00232-19098WAR (1 Quart)	Qty 5: Sonata Qty 6: Tucson Allowance for 5 quarts have been included; do NOT use 100% full strength. Prepare coolant mixed with distilled/filtered water to refill the cooling system: 45-60% coolant, diluted with water.

Parts Information (continued):

Vehicle	Part Name	Part Number	Remarks
Sonata (DN8)	EGR Service Kit (each kit has 1 part each, as specified within the Remarks)	28751-2S001QQH	Gasket - Exhaust Pipe 28751-D4350
			Gasket - Exhaust Pipe 28751-3S100
			Gasket - EGR Pipe 28493-2S010
			Gasket - EGR Pipe 28493-2S020
			Gasket - Catalyst Case 28535-2SAD0
			Gasket - Thermostat Housing 25623-2S600
			O-Ring 25462-2S000
			O-Ring 25462-2S500
			Gasket - EGR Pipe 28493-2S000
			Gasket - EGR Cooler 28493-2S050
Tucson (NX4)		28751-2S002QQH	Gasket - Exhaust Pipe 28751-3S100
			Gasket - Exhaust Pipe 28751-2S000
			Gasket - EGR Pipe 28493-2S010
			Gasket - EGR Pipe 28493-2S020
			Gasket - Catalyst Case 28535-2SAD0
			Gasket - Thermostat Housing 25623 - 2S600
			O-Ring 25462 - 2S000
			O-Ring 25462 - 2S500
			Gasket - EGR Pipe 28493 - 2S000
			Gasket - EGR Cooler 28493 - 2S050

NOTE 1: Order 1 kit for the specified Tucson/Sonata along with the applicable parts listed on page 2.

Warranty Information:

Model	Op. Code	Operation	Op. Time	Causal Part	Nature Code	Cause Code
Sonata Hybrid (DN8 HEV)	40D076R0	EGR Valve Assembly and Gasket Replacement	0.5 M/H	28400-2J310	W11	ZZ7
Sonata (DN8)	40D076R9		2.4 M/H	28400-2S000		
Tucson (NX4)	40D076RA		2.5 M/H			

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

NOTE 2: If a part is found in need of replacement while performing this campaign 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.

NOTE 3: This TSB includes Repair validation photos. Op times include VIN, Mileage, and Repair validation photo(s) as outlined in the Digital Documentation Policy.

NOTE 4: 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.**

Service Procedure:**DIGITAL DOCUMENTATION**

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

NOTICE

Applying the recommended torque to all fasteners is essential to reduce potential issues from occurring after the service procedure.

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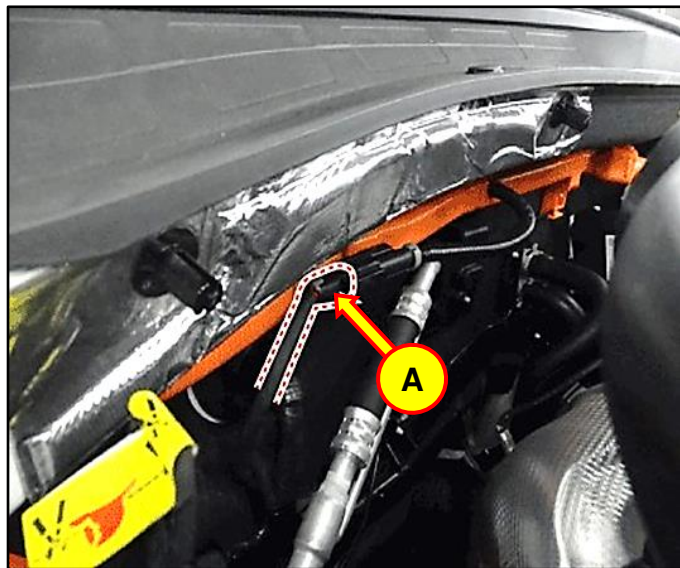
- EGR Valve Assembly and Gasket Replacement – Sonata Hybrid (DN8 HEV) 5
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EGR Valve Assembly and Gasket Replacement – Sonata Hybrid (DN8 HEV)

1. Refer to the shop manual to disconnect the high-voltage circuit:
 - **General Information > High Voltage Shutoff Procedure**

Record customer preset radio stations if applicable.

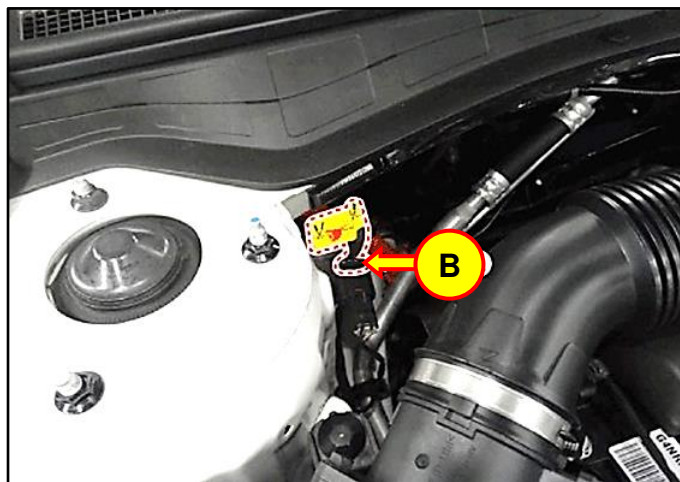
Disconnect the 12V positive connector (A) from the auxiliary battery.



2. Disconnect the service interlock connector (B).

CAUTION

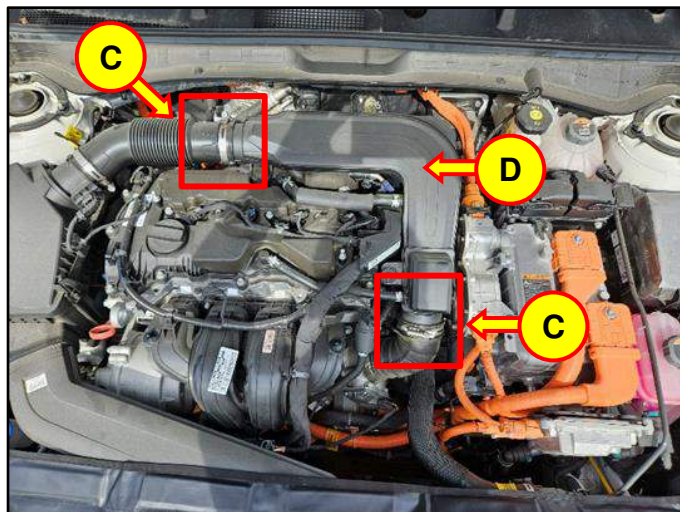
Wait for at least **3 minutes** to ensure the capacitor in the high voltage system is fully discharged.



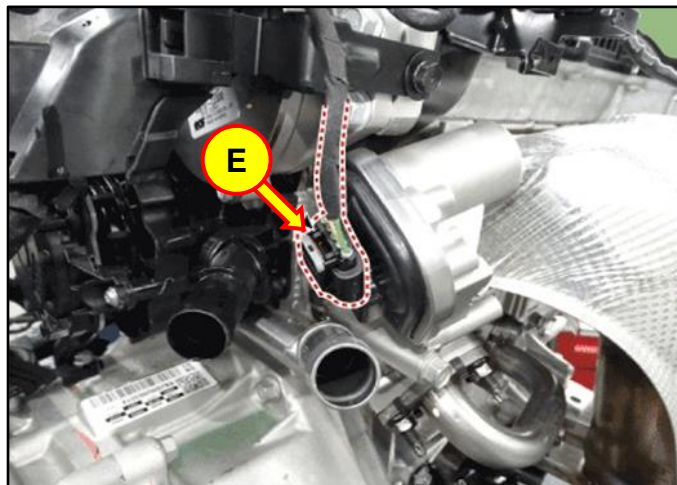
3. Loosen the mounting clamps (C) and remove the air intake hose (D).

Tightening Torque:

lb-ft	9.8
lb-in	117
N.m	3.7



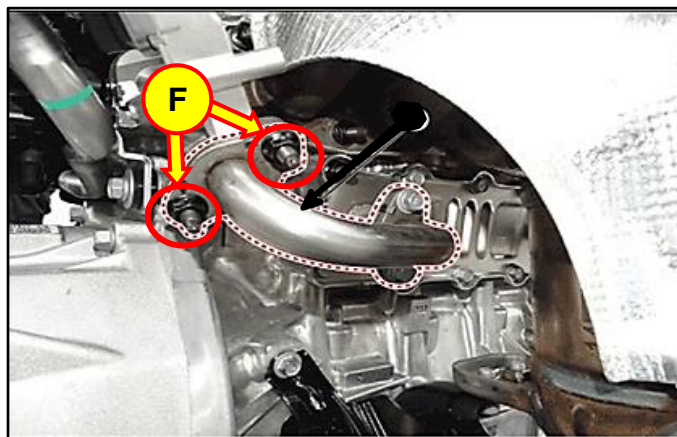
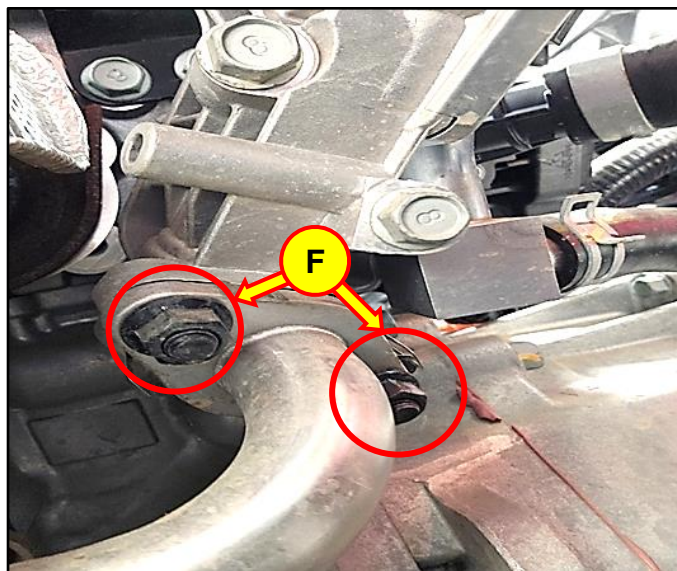
4. Disconnect the EGR control valve connector (E).



5. Remove the mounting nuts (F) of the EGR valve cooler pipe.

Tightening Torque:

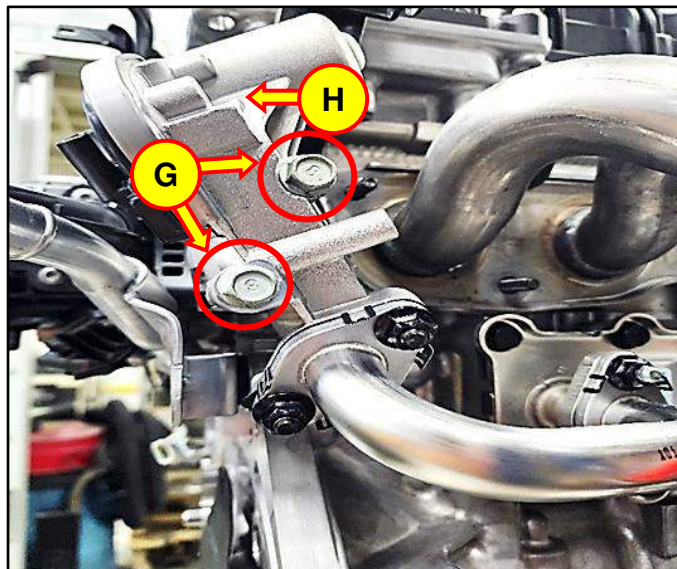
lb-ft	22
N.m	16



6. Remove the mounting bolts (G), and remove the EGR valve (H).

Tightening Torque:

lb-ft	22
N.m	16



7. **i Information**

Mount the EGR pipe gasket before installing the EGR valve assembly.

Tighten the EGR control valve to the specified torque.

Avoid dropping the EGR control valve to prevent internal damage. Do **NOT** use if damaged.

Prevent foreign substances from entering the EGR control valve.

Orient the EGR pipe gasket as shown in photo.

Gasket



EGR Valve Assembly



8. Reinstall components in the reverse order of the removal process.

9.

DIGITAL DOCUMENTATION



Using STUI, take a photo of the newly installed EGR Valve capturing the production stamp with the last 6 digits of the VIN and the date of repair on a piece of paper.

Upload the photo to STUI.



EGR Valve Assembly and Gasket Replacement – Sonata (DN8) & Tucson (NX4)

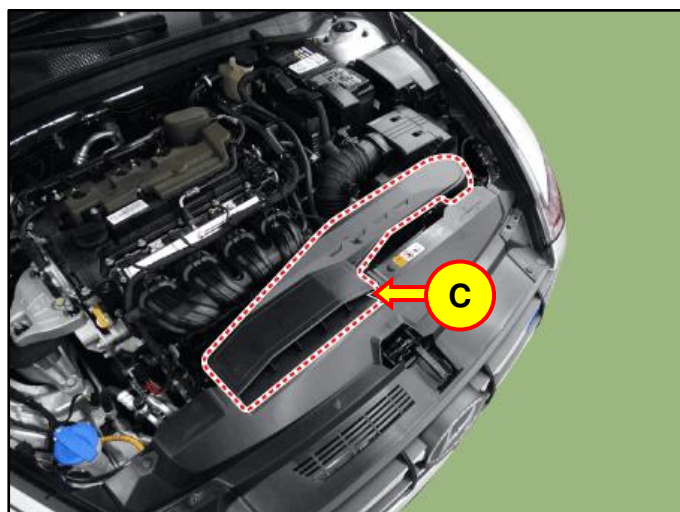
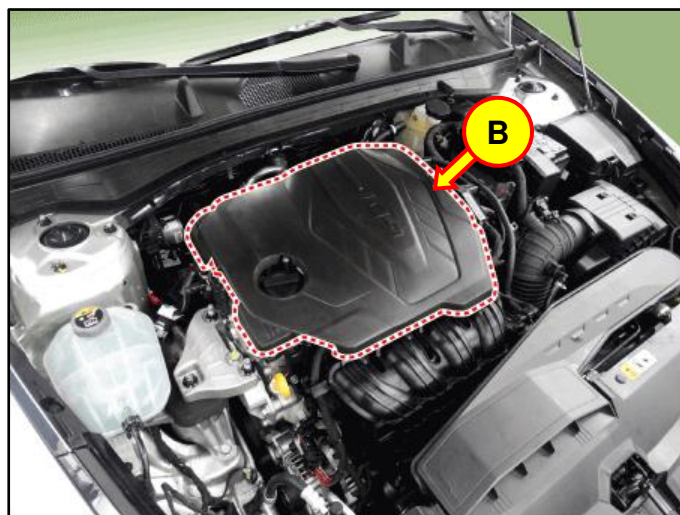
1. Record customer preset radio stations if applicable.

Disconnect the negative (–) battery terminal (A).

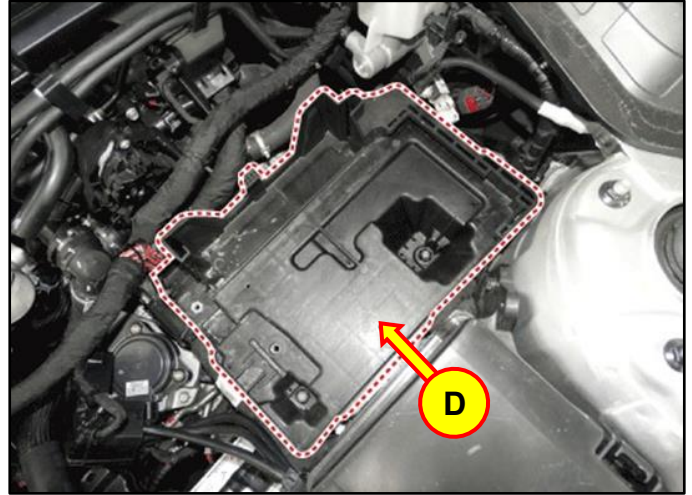


2. Refer to the shop manual to remove the engine cover (B), air duct (C), and air cleaner assembly:

- **Engine Mechanical System > Engine And Transaxle Assembly > Engine Cover > Repair procedures**



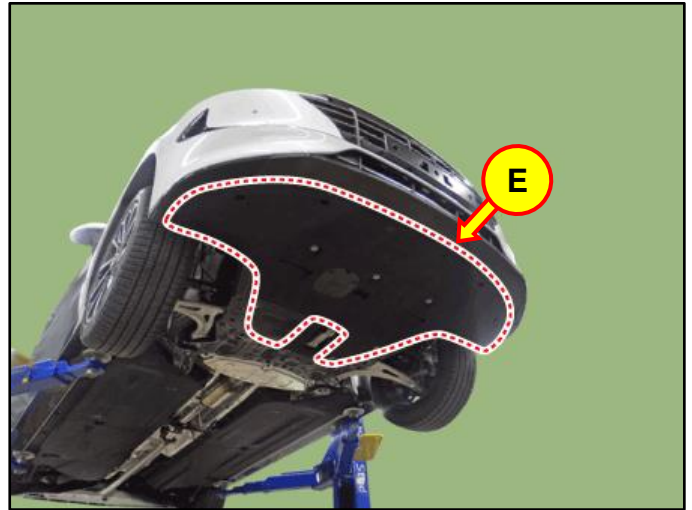
3. Remove the battery and battery tray (D).



4. Lift the vehicle.

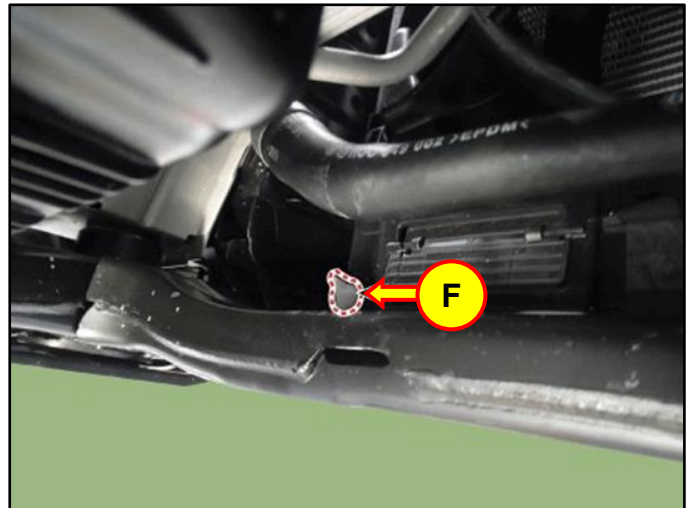
Refer to the shop manual to remove the engine room undercover (E):

- **Engine Mechanical System > Engine And Transaxle Assembly > Engine Room Under Cover > Repair procedures**



5. Refer to the shop manual to remove the drain plug (F) to drain the coolant:

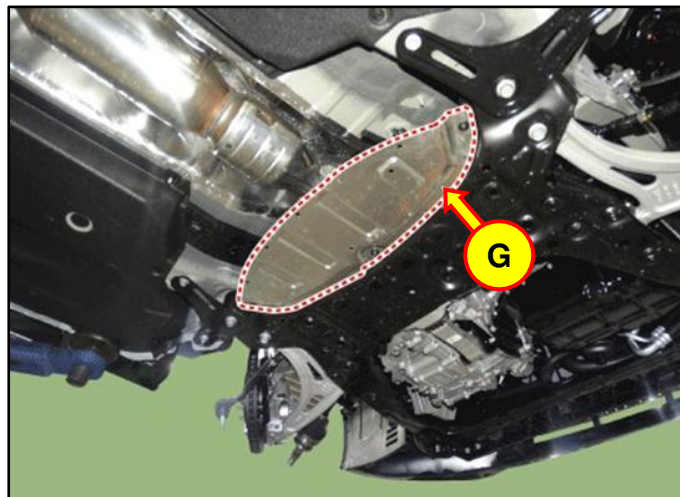
- **Engine Mechanical System > Cooling System > Coolant > Repair procedures**



6. Refer to the shop manual to remove the heat protector (G):
- **Engine Mechanical System > Intake And Exhaust System > Muffler > Repair procedures**

Tightening Torque:

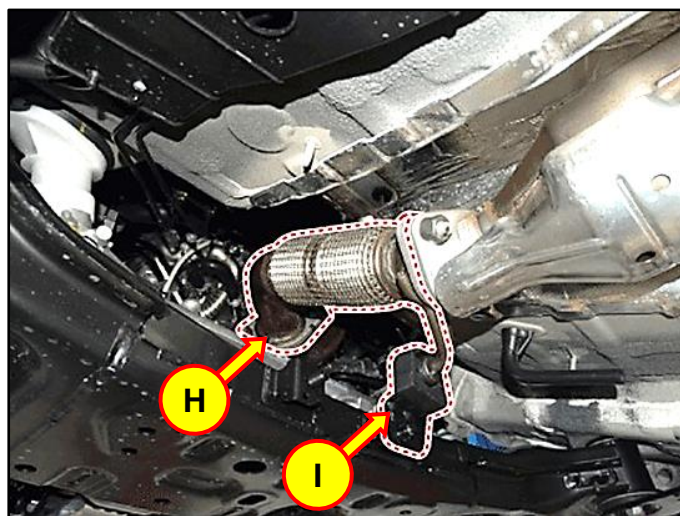
lb-ft	6.5
lb-in	78
N.m	8.8



7. Remove the front muffler (H) and muffler hanger (I).

Tightening Torque:

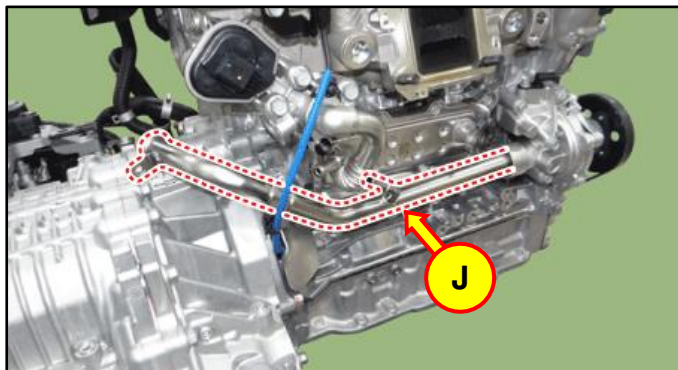
lb-ft	39
N.m	53



8. Refer to the shop manual to remove the water inlet pipe (J) and exhaust manifold (K):
- **Engine Mechanical System > Cooling System > Integrated Thermal Management Module (ITM) > Repair procedures**
 - **Engine Mechanical System > Intake And Exhaust System > Muffler > Repair procedures**

Tightening Torque:

lb-ft	38
N.m	52

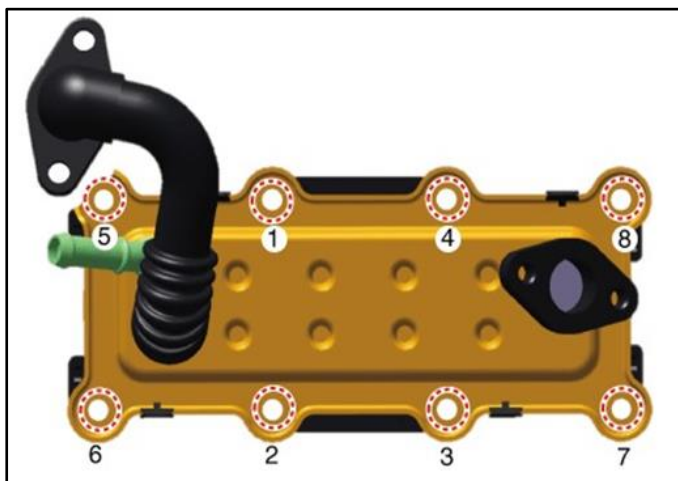


9. First, remove the bolts and nuts, then remove the EGR cooler (L).

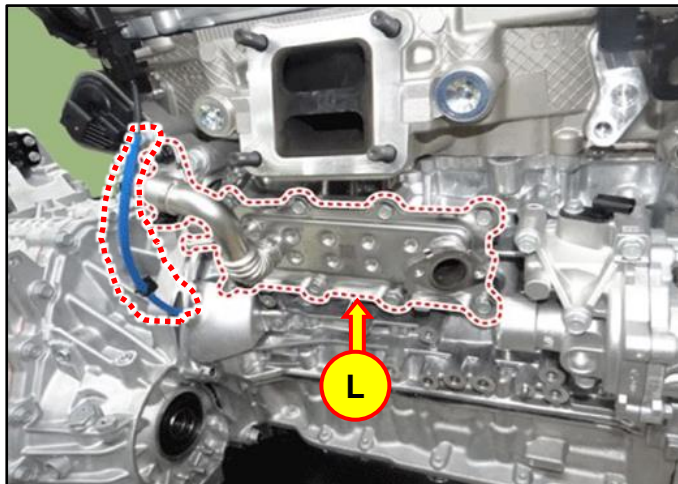
***i* Information**

When installing the EGR cooler, first hand-tighten the bolts, then tighten them to the specified torque in the sequence shown.

Do **NOT** reuse the EGR cooler gasket.

***i* Information**

Carefully detach the plastic clip securing the Crankshaft Position Sensor (CKPS) wiring. Reinstall during reassembly.



10. Refer to the shop manual to remove the Integrated Thermal Management Module (ITM).
- **Engine Mechanical System > Cooling System > Integrated Thermal Management Module (ITM) > Repair procedures**

First, remove the bolts and nuts (N, O, P), then remove the EGR cooler pipe (M).

Tightening Torque:**N:**

lb-ft	6.5
lb-in	78
N.m	8.8

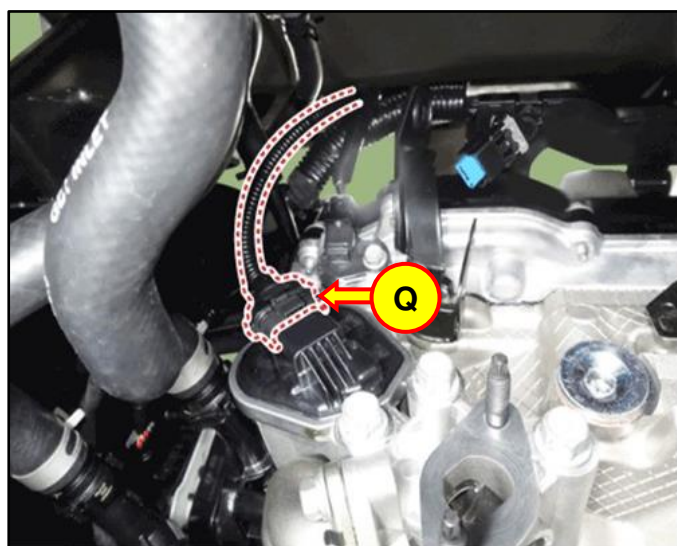
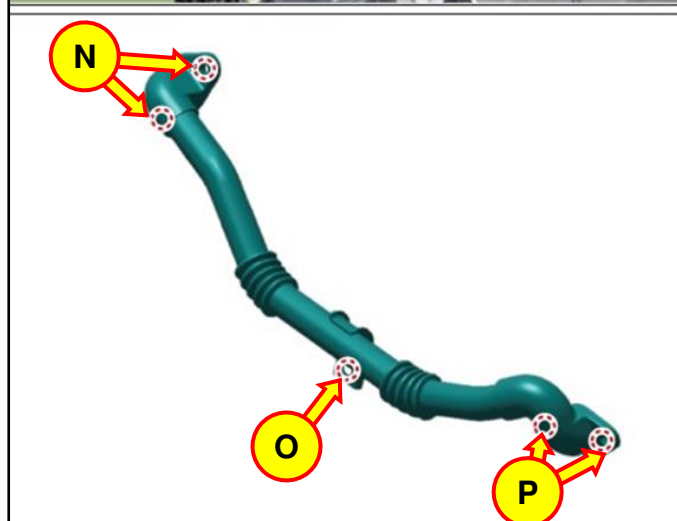
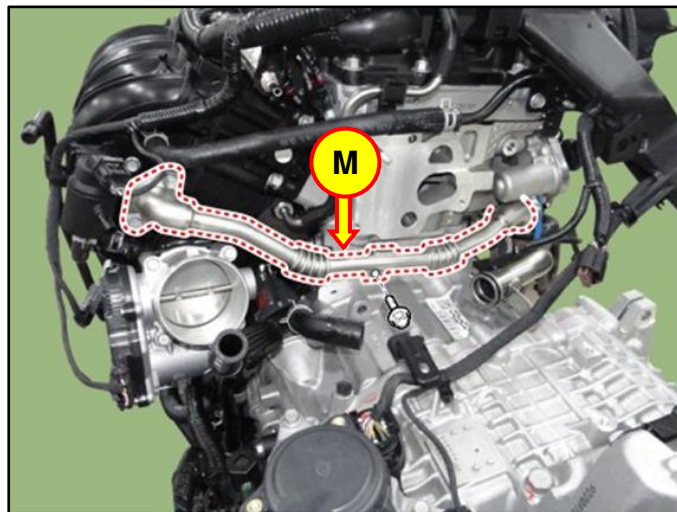
O:

lb-ft	16
N.m	21

P:

lb-ft	16
N.m	21

11. Disconnect the EGR control valve connector (Q).



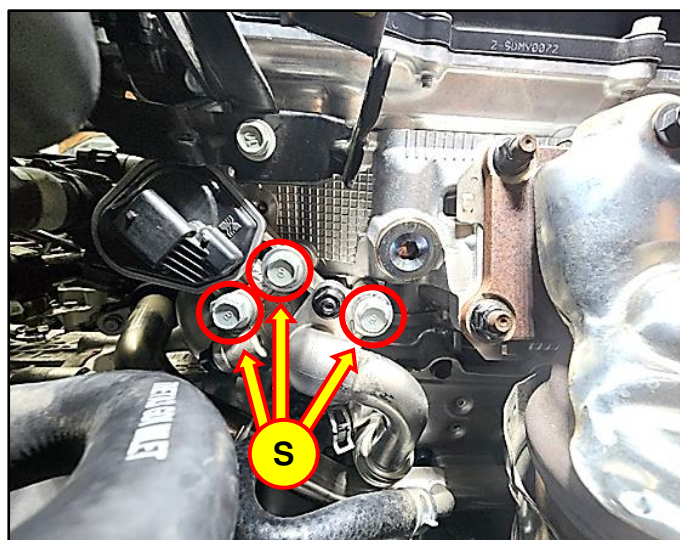
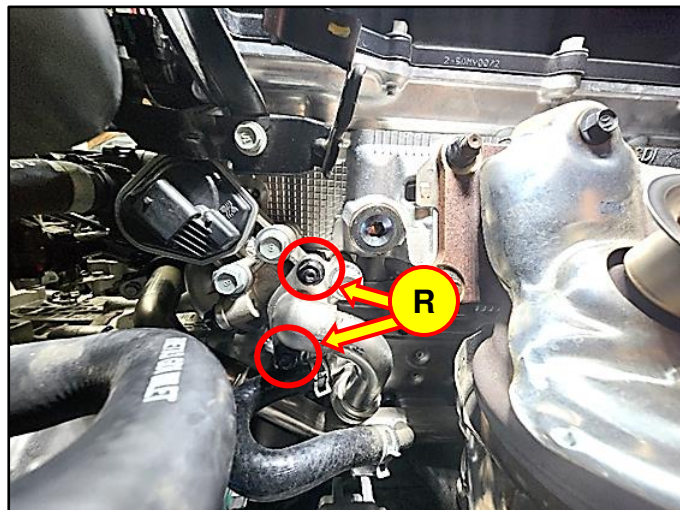
12. Remove the mounting nuts (R, S) of the EGR control valve.

Tightening Torque:**R:**

lb-ft	16
N.m	22

S:

lb-ft	41
N.m	55



13. Install the supplied EGR control valve and gasket.

**Information**

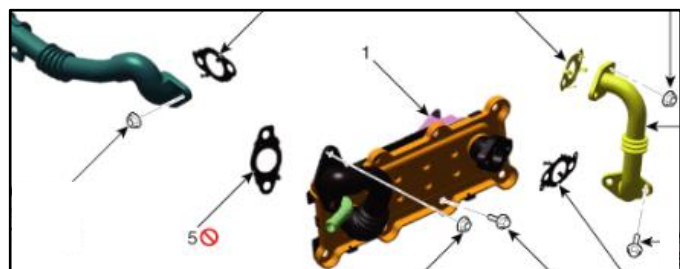
Mount the EGR pipe gasket before installing the EGR valve assembly.

Tighten the EGR control valve to the specified torque.

Avoid dropping the EGR control valve to prevent internal damage. Do **NOT** use if damaged.

Prevent foreign substances from entering the EGR control valve.

Orient the EGR pipe gasket as shown in photo.



EGR Valve Assembly



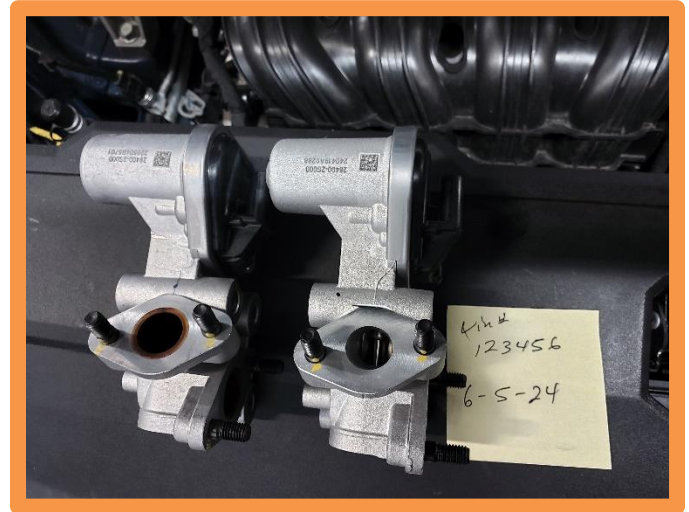
14.

**DIGITAL
DOCUMENTATION**



Using STUI, take a photo of the new EGR Valve next to the old one, capturing the production stamp with the last 6 digits of the VIN and the date of repair on a piece of paper.

Upload the photo to STUI.



15. Reinstall components in the reverse order of the removal process.
16. Refer to the shop manual to fill the engine with coolant:
- **Engine Mechanical System > Cooling System > Coolant > Repair procedures**



Information

Use the ITM coolant filling method to fill coolant.

Two methods for coolant charging and air bleeding: GDS (1) available or unavailable (2).

17. Start the engine to confirm proper operation of the vehicle.

Campaign Sticker Application (for All Vehicles)

1. Fill in the Dealer Code and Date on the Campaign Sticker, and apply adjacent to the existing Emission Label, on the underside of the hood, as shown.

Be sure to clean the mounting surface to ensure proper label adhesion.



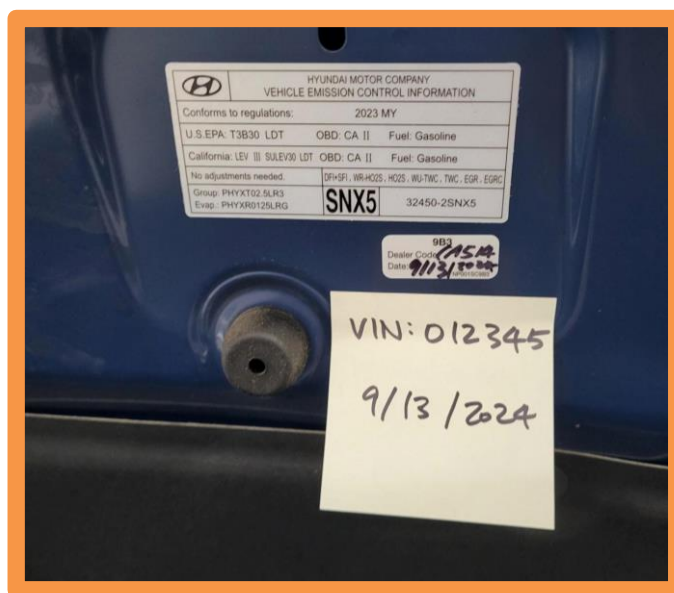
- 2.

**DIGITAL
DOCUMENTATION**



Using STUI, take a clear photo of the campaign sticker along with the last 6 digits of the VIN and the date of repair on a piece of paper.

Upload the photo to STUI.



3. Proceed to next section and complete the **Vehicle Emission Recall - Proof of Correction Card** for the states listed.

If not applicable to your state, the repair process is complete.

Vehicle Emission Recall – Proof of Correction Card (for Vehicles Registered in Certain States)

For vehicles registered in California, Colorado, Connecticut, Delaware, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington:

VEHICLE EMISSION RECALL - PROOF OF CORRECTION CARD

A Vehicle Emission Recall - Proof of Correction card must be filled out for all vehicles registered in California, Colorado, Connecticut, Delaware, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington. Residents of these states, who own an affected vehicle, will be required to possess a Vehicle Emission Recall - Proof of Correction card as evidence of voluntary service campaign completion, when they apply for vehicle registration renewal.

WHAT TO DO WITH THE CARD:

The Vehicle Emission Recall - Proof of Correction card must be completed by the Dealership's Service Manager using a permanent ink pen. A fine point pen is recommended. When filling in the information, copy the information directly from the vehicle, not from the repair order.

ALL INFORMATION MUST BE PRINTED AND NEAT.

The copy of the card shown below indicates the areas to be filled in. Each area must be filled in.

The completely filled out Vehicle Emission Recall - Proof of Correction card should be given to the owner of the vehicle upon completion of the Campaign.

1. Enter Vehicle's License Number
2. Enter "Hyundai"
3. Enter Model Year
4. Enter "Sonata, Tucson, or Sonata Hybrid"
5. Enter the vehicle's VIN Number
6. Enter "9B3"
7. Enter Dealership Name
8. Enter Dealership's Address
NOTE: Enter the physical address, not the mailing address (not a P.O. Box)
9. Enter Date of Repair
10. Service Manager Sign Here

Vehicle Emission Recall – Proof of Correction									
License No.	Make	Model Year	Body Type	Vehicle Identification Number					
1	2	3	4					5	
Manufacturer:			2	Recall Number:			6		
The above described vehicle has been repaired, modified and/or equipped with new emission control devices to meet applicable California Emission Control Laws.									
Dealer's Name				Address, City, State and Zip					
7				8					
Date				Dealership's Authorized Signature					
9				x 10					
Return this certificate to DMV only when required – otherwise retain for your records.									
NP050-09006 8/14									