HYUNDAI Technical Service Bulletin	GROUP **RECALL**	NUMBER **23-01-071H-1**
	DATE **SEPTEMBER 2023**	MODEL(S) **PALISADE (LX2)** **SONATA (DN8)** **TUCSON (NX4)**

SUBJECT: ELECTRIC OIL PUMP CONTROLLER INSPECTION AND REPLACEMENT (RECALL 246)

This TSB supersedes TSB # 23-01-071H to add Sonata (DN8) and Tucson (NX4).

★ IMPORTANT

Vehicle repairs related to safety recalls are critically important and must be performed properly in accordance with TSB procedures. Review this bulletin in its entirety prior to beginning any repair work.

As required by federal law, dealers must not deliver new vehicles for sale or for lease to customers until all open recalls have been performed. Dealers must also perform all open recalls on used vehicles, demo, and rental vehicles prior to placing them into customer use and whenever an affected vehicle is in the shop for any maintenance or repair.

Access the "Vehicle Information" screen via WEBDCS to identify open recalls.

Description: The transmission electric oil pump for the Idle Stop & Go System ("ISG") in certain vehicles listed below may have been assembled with printed circuit boards ("PCB") that were damaged during manufacturing by the oil pump controller supplier. A damaged capacitor on the pump controller PCB could impact electrical operation leading to heat damage to the electric oil pump circuit board, connector, and wiring harness. The heat damage at the pump increases the risk of a vehicle fire in addition to a potential Controller Area Network ("CAN") communication disruption for multiple onboard controllers.

This bulletin provides the procedure to check the ISG Electric Oil Pump (EOP) controller specification and replace it if necessary for Palisade (LX2). For Sonata (DN8) and Tucson (NX4), 100% replacement is required.

Applicable Vehicles (Certain):

- 2023~24MY Palisade (LX2) Produced from 10/18/2022 – 06/27/2023
- 2023MY Tucson (NX4) Produced from 10/29/2022 – 04/21/2023
- 2023MY Sonata (DN8) Produced from 10/26/2022 – 04/03/2023

Parts Information: 8-Speed Vehicles

Model	Part Name	Part Number	Figure	Remarks
Palisade (LX2) Tucson (NX4) Sonata (DN8)	Controller	46110-2F0ASQQH		Qty: 1

NOTE: Replace only the controller.

Required Tools:

Tool Name	Figure
T25 TORX Wrench or Ratchet	

Warranty Information:

Model	Op. Code	Operation	Op. Time	Casual Part	Nature Code	Cause Code
Palisade (LX2)	31D094R0	EOP controller specification check (LX2)	0.3 M/H	46110-2F0ASQQH	I14	ZZ1
Palisade (LX2)	31D094R1	EOP controller specification check and replacement (LX2)	0.5 M/H	46110-2F0ASQQH		
Sonata (DN8) Tucson (NX4)	31D094R3	EOP controller replacement (DN8, NX4)	0.5 M/H	46110-2F0ASQQH		

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 recall 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 photos 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.**

Video Procedure:

Refer to the link below for guided video information.

Hyundai Service Learning – Recall 246 Service Procedure
https://vimeo.com/856569490/2a45f0587a

Service Procedure: Palisade (LX2)

STUI

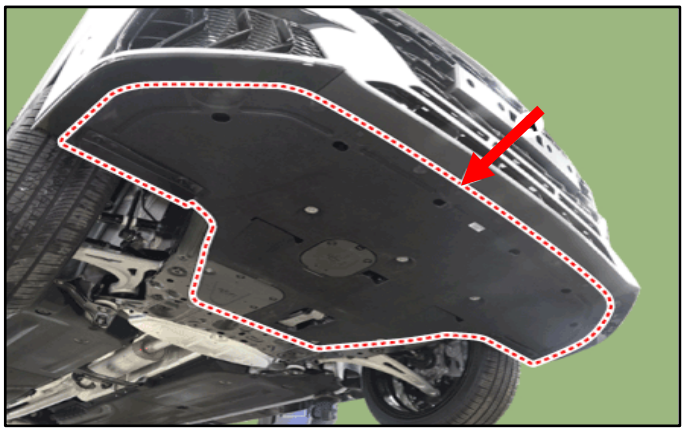
This TSB includes Repair validation photos. Refer to the latest Warranty Digital Documentation Policy for requirements.

Inspection Procedure (LX2):

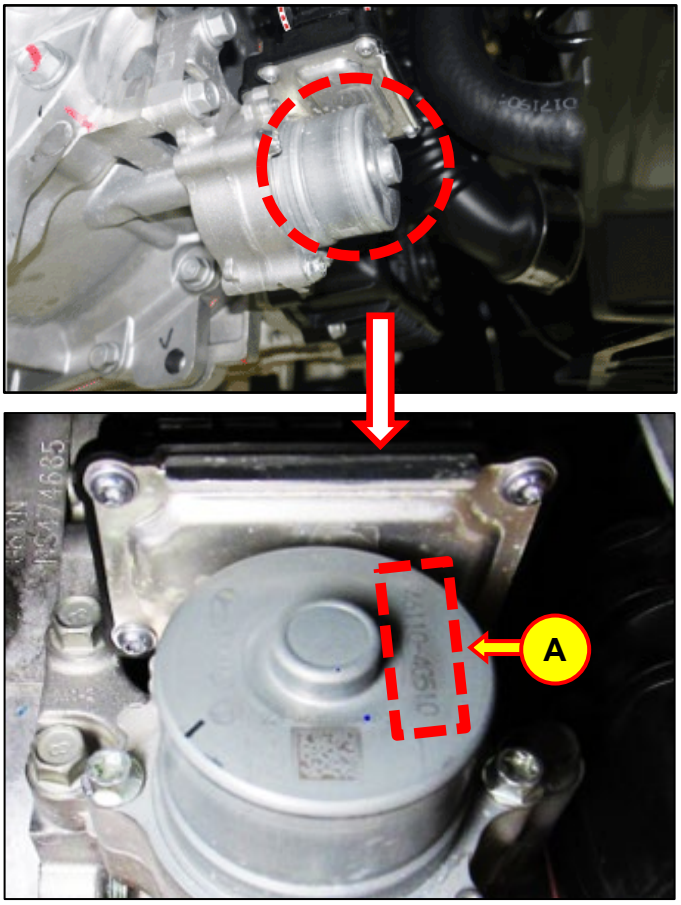
1. Record the preset radio stations.

   Disconnect the negative (–) battery cable.

   Lift the vehicle on a hoist and remove the undercover.



2. Check the EOP part number.



Information

Use the part number on the part surface (A) as shown.

- If the part number is as follows, take a STUI picture as directed in step 3 below. Then reinstall the undercover and return the vehicle to the customer.
  - **46110-4G500**
  - **46110-4G510**

- If the part number is as follows, take a STUI picture as directed in step 3 below. Then continue to the Replacement Procedure to replace the EOP controller.
  - **46110-4G530**

3.

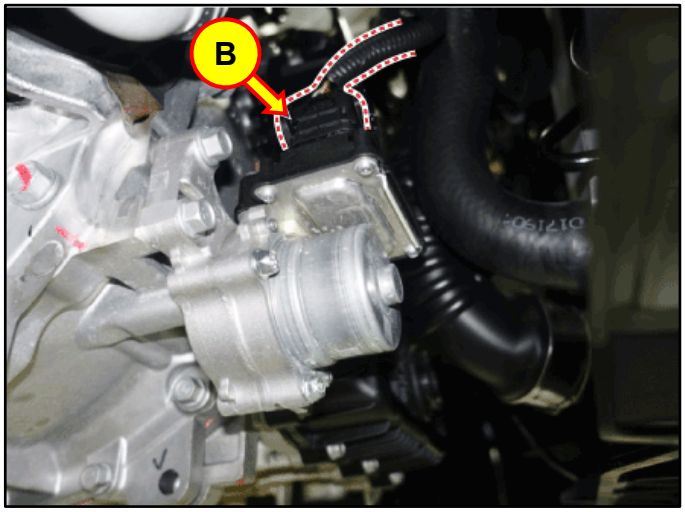
STUI

Using STUI, take a photo of the existing EOP with the part number visible, including the last 6 digits of the VIN and date of the inspection on a piece of paper.

Upload the photo to STUI.

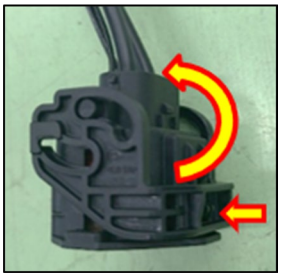
Replacement Procedure (LX2):

1. Disconnect the EOP connector (B).

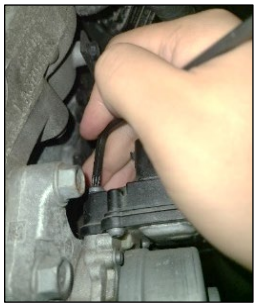


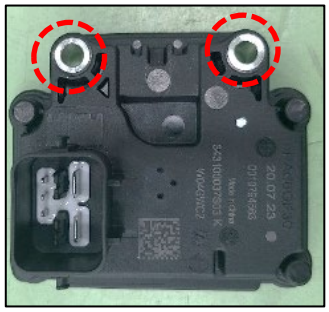
Information

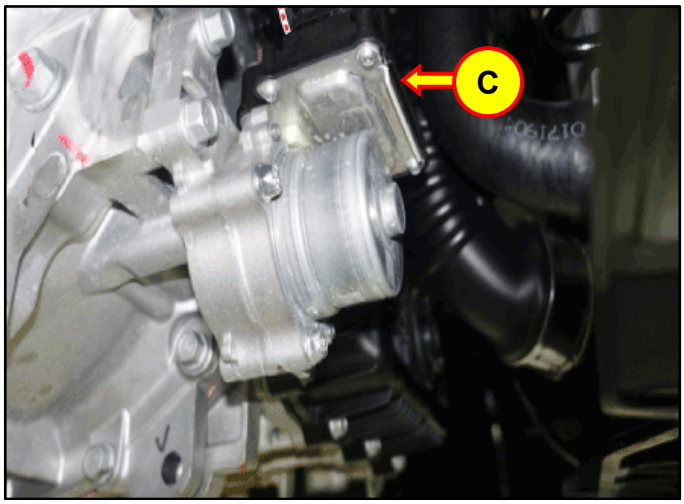
Release the connector hook and then pull it upward.



2. Remove 2 EOP controller bolts using the wrench and remove the EOP controller (C).







3. **STUI**

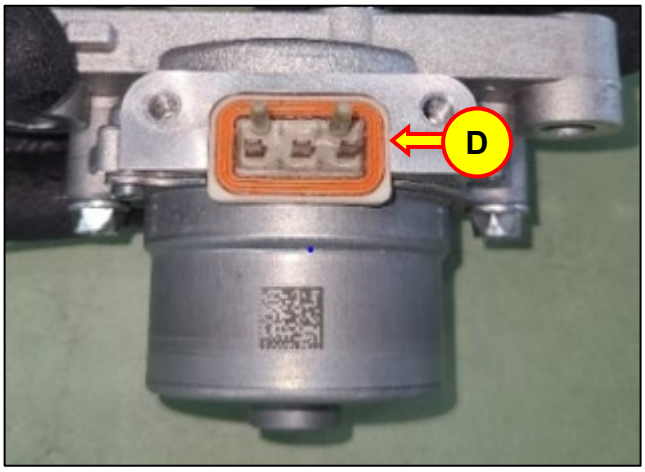
Using STUI, take a photo of the new controller (right) next to the existing controller (left) with the last 6 digits of the VIN and the date of the repair on a piece of paper.

Upload the photo to STUI.

4. Use a mirror to confirm the orange seal (D) is attached to the EOP.

   Install the new controller.

   Reinstall the bolts and torque to specification.
   Torque: 6~7 lb-ft (8~10 N.m, 0.8~1.0 kgf.m)



NOTICE

- If the orange seal became separated when replacing the controller, be sure to install it onto the EOP.
- When installing the controller, make sure there are no gaps between the controller and the EOP.

5. Reconnect the EOP connector.
6. Reconnect the negative (–) battery cable.

   Input the customer's radio presets.
7. Reinstall the undercover.
8. Start the engine and confirm no ATF leaks are found.
9. The service procedure is now complete.

   Return the vehicle to the customer.

Service Procedure: Sonata (DN8), Tucson (NX4))

STUI

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

Replacement Procedure: Sonata (DN8), Tucson (NX4)

NOTICE

All Sonata (DN8) and Tucson (NX4) require the EOP to be replaced 100%. You do not need to check the EOP part number.

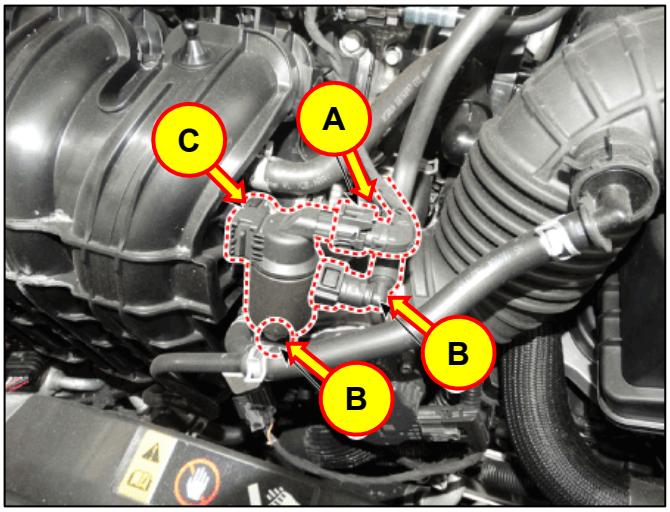
1. Record the preset radio stations.

   Disconnect the negative (–) battery cable.

2. Disconnect the purge control solenoid valve connector (A).

   Disconnect the vapor hoses (B).

   Remove the purge control solenoid valve (C).



3. Disconnect the intake hose (D).

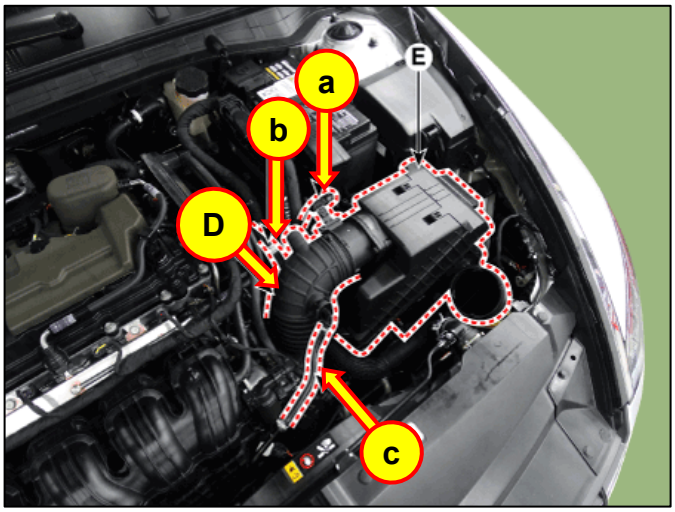
   Disconnect the MAFS & IATS connector (a).

   Disconnect the brake booster vacuum hose (b).

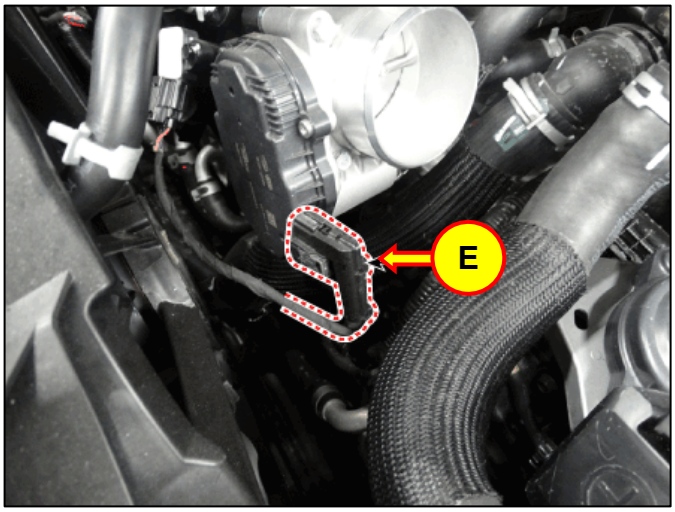
   Disconnect the breather hose (c).

   Tighten the hose clamp:

   Torque: 2~3 lb-ft (3~5 N.m (0.3~0.5 kgf. m)

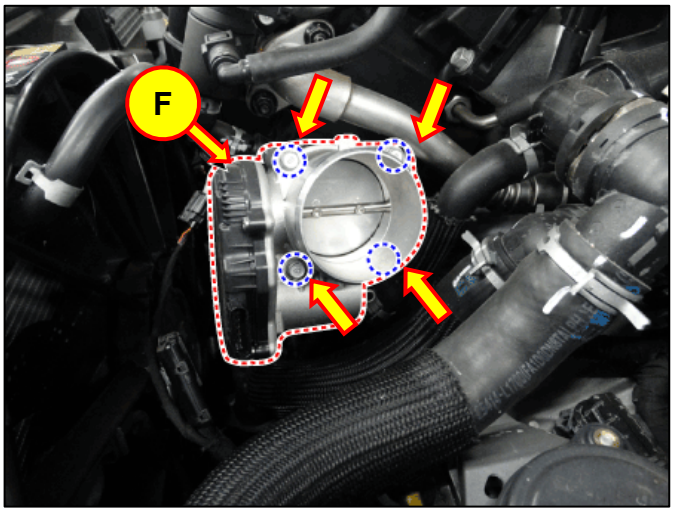


4. Disconnect the ETC module connector (E).



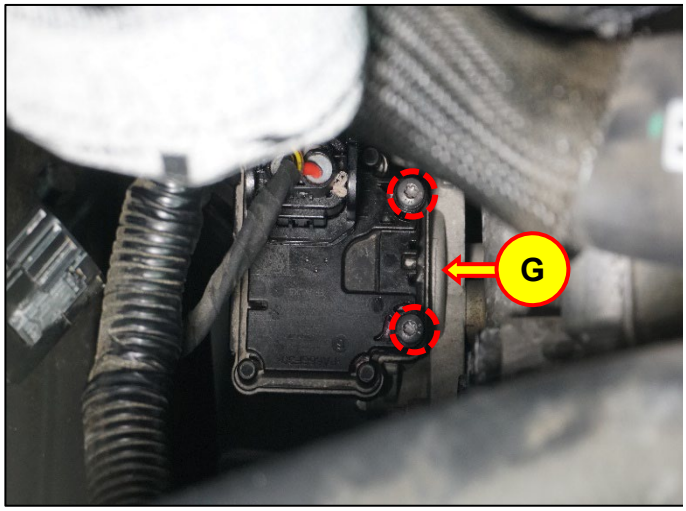
5. Remove 4 mounting bolts and remove the ETC Module (F).

   Electronic throttle body Installation bolt:
   Torque: 7~9 lb-ft (10~12 N.m, 1.0~1. 2 kgf.m)



6. Use a 25T Torx wrench and a long extension to remove 2 EOP controller fixing bolts. Remove the controller (G).

   Torque: 6~7 lb-ft (8~ 10 N.m, 0.8 ~ 1.0 kgf.m)



7.

STUI

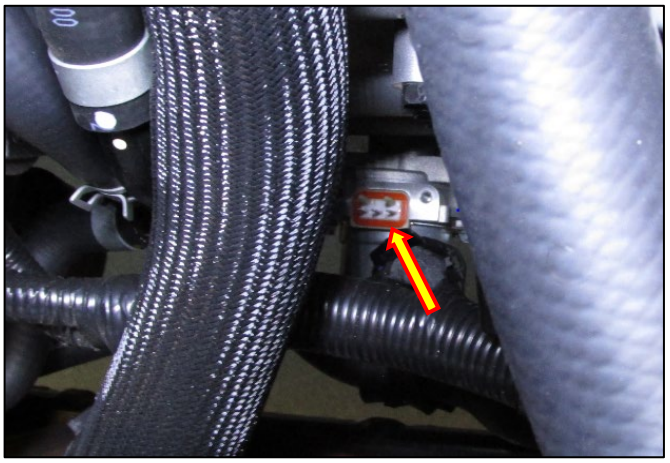
Using STUI, take a photo of the new controller (right) next to the existing controller (left) with the last 6 digits of the VIN and the date of the repair on a piece of paper.

Upload the photo to STUI.

8. Confirm the orange seal is correctly in place on the EOP.

   Reinstall the new controller.

   Reinstall 2 EOP controller bolts and torque to specification.
   Torque: 6~7 lb-ft (8~10 N.m, 0.8~1.0 kgf.m)



9. Reconnect the EOP connector.
10. Install all remaining parts in reverse order of removal.
11. Reconnect the negative (–) battery cable.

    Input the customer's radio presets.
12. Start the engine and confirm no ATF leaks are found.
13. The service procedure is now complete.

    Return the vehicle to the customer.