

 HYUNDAI
Technical Service Bulletin

GROUP CAMPAIGN	NUMBER 23-01-036H-1
DATE JUNE 2023	MODEL(S) ELANTRA (CN7A) SONATA (DN8A) SANTA FE (TMA)

SUBJECT: HECU MODULE DARK CURRENT MEASUREMENT AND REPLACEMENT (SERVICE CAMPAIGN 990)

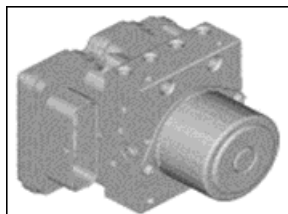
This TSB supersedes 23-01-036H to include a step to reconnect the negative battery terminal on page 8, clarify multi-fuse removal and reinstallation for Sonata and Santa Fe vehicles, and to add a note to check the multimeter fuse before measuring dark current.

★ 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: Some Elantra (CN7A), Sonata (DN8A) and Santa Fe (TMA) vehicles may exhibit the Electronic Parking Brake (EPB) warning light on due to brake fluid entering the HECU electrical connector. DTC C1501 (EPB Switch Failure) may be present, but EPB performance remains unaffected. This bulletin describes the procedure to inspect, and if necessary, replace the Hydraulic Electronic Control Unit (HECU).



STUI



As outlined in the Digital Documentation Policy, all claims require VIN and Mileage validation through VCI connection or photo capture. Additionally, please ensure the repair Part photo requirement is completed according to the steps in the TSB. **All claims submitted that have incomplete, illegible, or missing documentation are subject to debit.**

Applicable Vehicles (Certain):

- 2022MY Elantra (CN7A) equipped with 2.0L engines produced 12/09/2021 - 02/14/2022 (VINs beginning with "5NP").
- 2022MY Sonata (DN8A) equipped with 1.6T and 2.5L engines produced 12/01/2021 - 04/12/2022 (VINs beginning with "5NP").
- 2022MY Santa Fe (TMA) equipped with 2.5L and 2.5T engines produced 11/30/2021 - 03/21/2022 (VINs beginning with "5NM").

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

Parts Information:

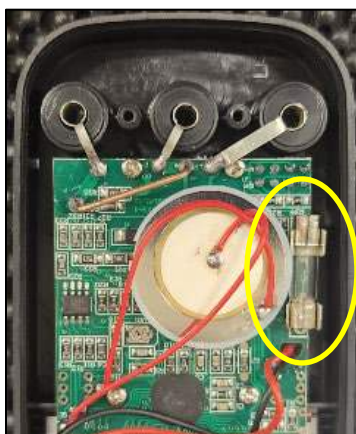
Model	Part Name	Original P/N	New P/N	QTY.
Elantra (CN7A)	Hydraulic Unit Assy ESCI+	58910-AB800	58910-AB800QQH	1
Sonata (DN8A)	Hydraulic Unit Assy ESCI+	58910-L0100	58910-L0100QQH	1
Santa Fe 2.5L (TMA)	Hydraulic Unit Assy ESCI+	58910-S2DA0	58910-S2DA0QQH	1
Santa Fe 2.5T (TMA)	Hydraulic Unit Assy ESCI+	58910-S2GA0	58910-S2GA0QQH	1

SST Information:

Tool Name	Part Number	Figure
Multimeter DT-830D+	HK589-DT830QQH	

NOTE 1: Each dealer has been provided 1 multimeter for the start of the campaign.

NOTE 2: Before taking the dark current measurement, check the multimeter internal fuse. If the fuse is not intact, replace it before use.



Warranty Information:

Model	Op. Code	Operation	Op. Time	Causal Part	Nature Code	Cause Code
Elantra (CN7A)	20DA25R0	HECU Dark Current Inspection ONLY (below max value)	0.3 M/H	58910-AB800QQH	I3B	ZZ3
	20DA25R1	HECU Dark Current Inspection (equal to or above max value) and HECU Replacement	1.5 M/H			
Sonata (DN8A)	20DA25R3	HECU Dark Current Inspection ONLY (below max value)	0.3 M/H	58910-L0100QQH		
	20DA25R4	HECU Dark Current Inspection (equal to or above max value) and HECU Replacement	1.5 M/H			
Santa Fe (TMA)	20DA25R6	HECU Dark Current Inspection ONLY (below max value)	0.3 M/H	58910-S2DA0QQH		
	20DA25R7	HECU Dark Current Inspection (equal to or above max value) and HECU Replacement	1.5 M/H			

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

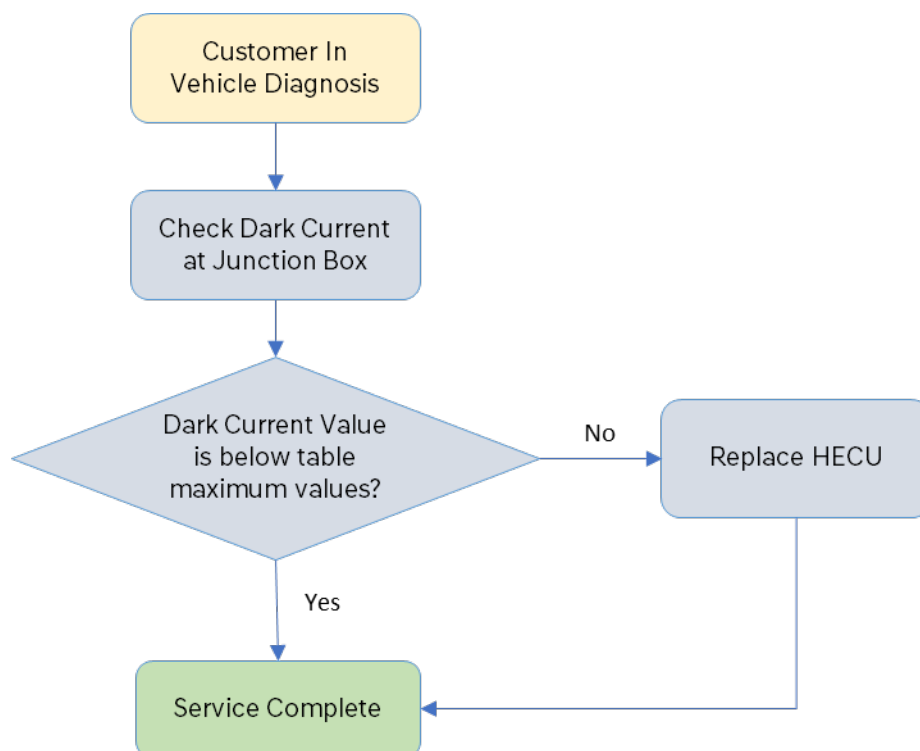
NOTE 2: If a part that is not covered by this recall is found in need of replacement while performing Service Campaign 990 and the affected part is still under warranty, submit a separate claim using the same repair order. If the affected part is out of warranty, submit a Prior Approval request for goodwill consideration prior to performing the work.

NOTE 3: Op times include VIN, Mileage and Part (if applicable) validation. **All claims submitted that have incomplete, illegible, or missing documentation are subject to debit.**

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.**

**Information**

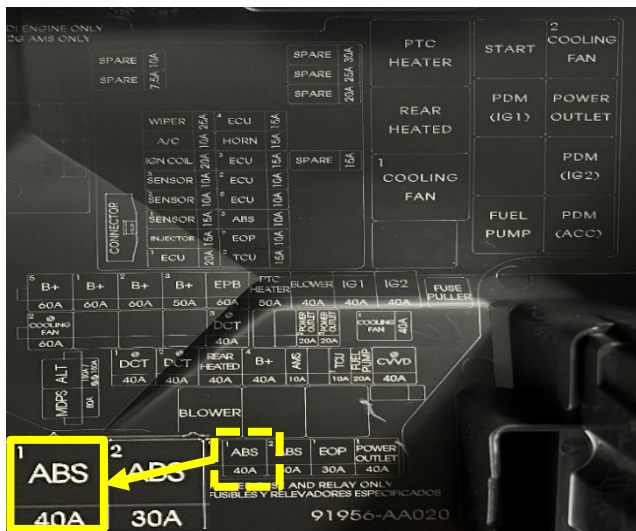
- If the “ABS”, “ESC” or “Brake” indicator lamps are illuminated, refer to the appropriate section of the repair manual prior to performing this TSB inspection.

Service Flowchart:**Service Inspection Guidance:**

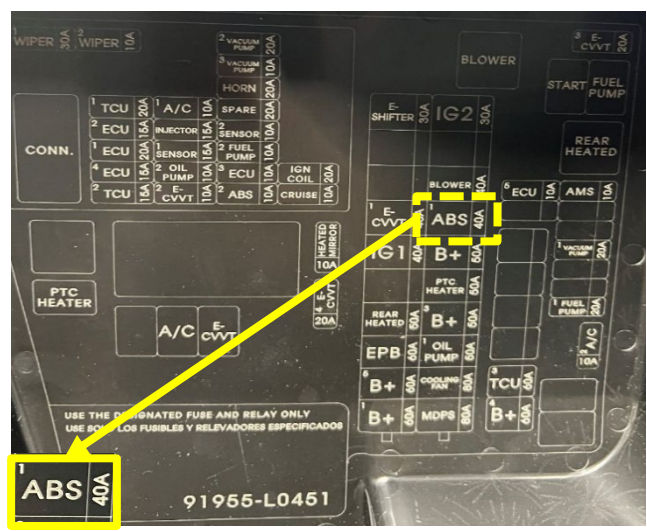
Model	Part Number	Part Name	Fuse Measurement Point	Maximum Dark Current Value
Elantra (CN7A)	58910-AB800	Hydraulic Unit Assy	40A (ABS)	95 μA
Sonata (DN8A)	58910-L0100	Hydraulic Unit Assy	40A (ABS)	95 μA
Santa Fe 2.5L (TMA)	58910-S2DA0	Hydraulic Unit Assy	30A (ABS)	95 μA
Santa Fe 2.5T (TMA)	58910-S2GA0	Hydraulic Unit Assy	30A (ABS)	105 μA

Fuse Box Cover Measurement Point Guide:

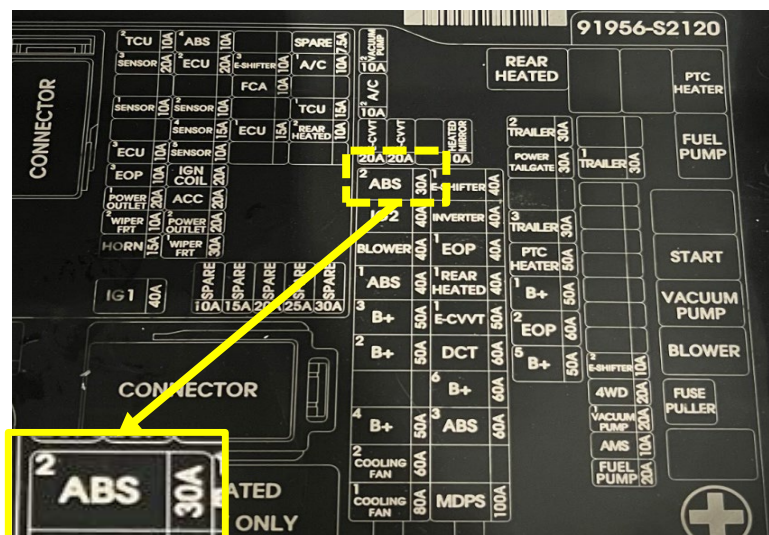
Elantra (CN7A): 58910-AB800



Sonata (DN8A): 58910-L0100



Santa Fe (TMA): 58910-S2DA0 / 58910-S2GA0



Service Procedure:

1. Record customer's radio presets.

Turn off the vehicle, close all doors, and wait at least 3 minutes after IGN OFF (to enter ESC Sleep mode).

***If the door is open while in standby, sleep mode will not activate.**

NOTICE

Do not "Start" the engine at any time during the test procedure. Doing so will yield inaccurate dark current measurement results.

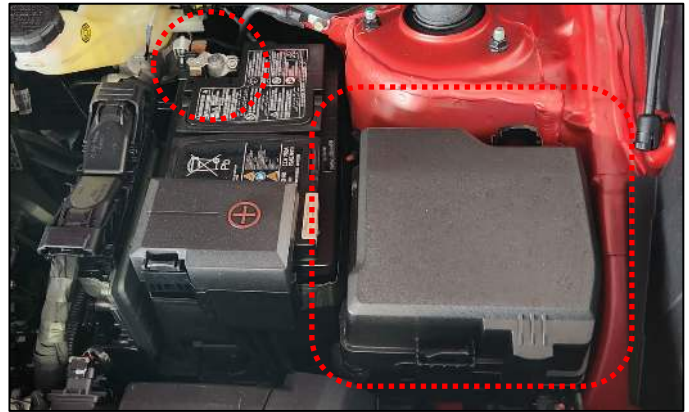
2. Disconnect the battery negative (-) terminal and remove the junction box fuse cover.

Negative (-) Battery Terminal Nut Tightening Torque:

lb-ft	• 3.0-4.4
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kgf.m	• 0.4-0.6
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N.m	• 4.0-6.0
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Information

DN8A vehicles: The ABS fuse measurement location is under the right multi-fuse bar.

TMA vehicles: The ABS fuse measurement location is under the left multi-fuse bar.

3. **Sonata (DN8A) vehicles:**

Remove the 10 mm multi-fuse mounting nut.

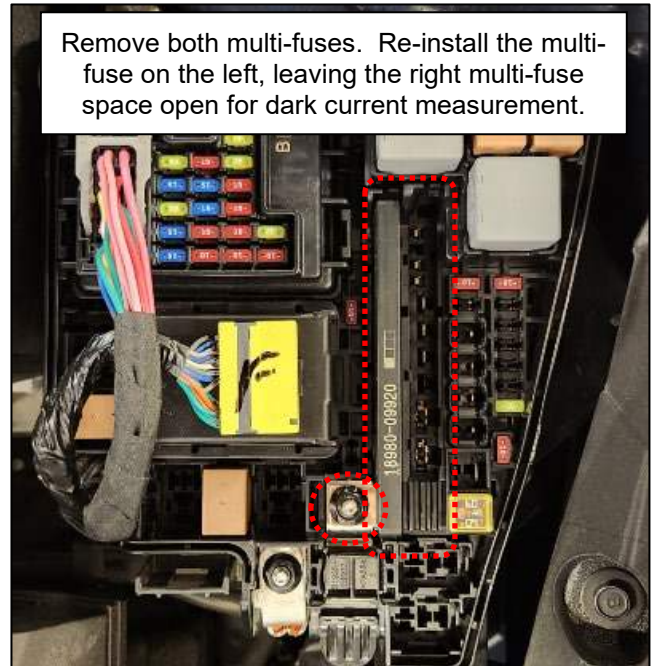
Remove both multi-fuses.

Locate the ABS fuse location in the junction box (see the *Fuse Box Measurement Point Guide*).

Re-install the multi-fuse on the left, as shown in the image.

Re-install the multi-fuse mounting nut.

Remove both multi-fuses. Re-install the multi-fuse on the left, leaving the right multi-fuse space open for dark current measurement.



Santa Fe (TMA) vehicles:

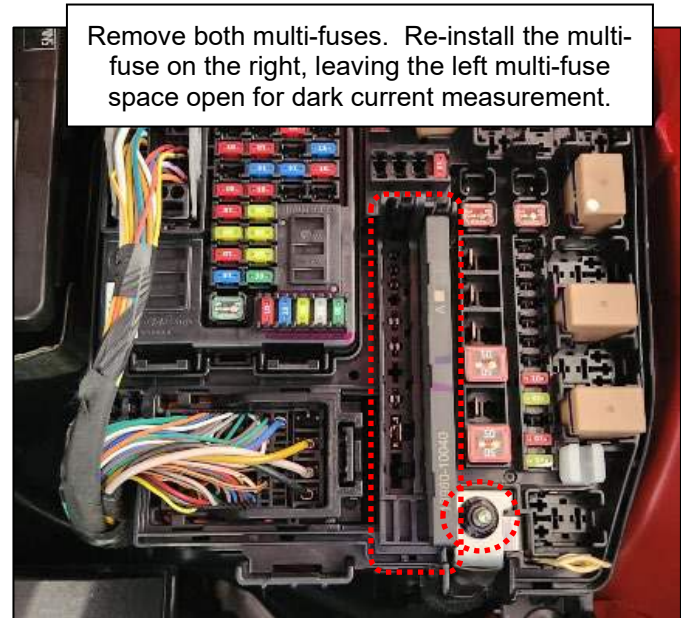
Remove the 10 mm nut and lift the junction cable over the stud.

Remove both multi-fuses.

Locate the ABS fuse location in the junction box (see the *Fuse Box Measurement Point Guide*).

Re-install the multi-fuse on the right, as shown in the image.

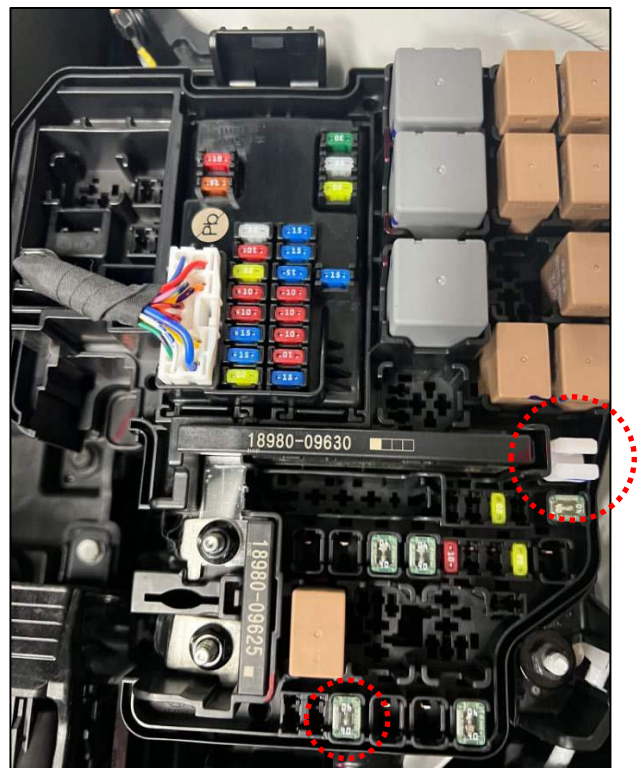
Reconnect the junction cable using the 10mm nut.



Elantra (CN7A) vehicles:

Locate the ABS fuse location in the junction box (see the *Fuse Box Measurement Point Guide*).

Use the fuse puller to remove the 40A ABS fuse.



4. Reconnect the negative (-) battery terminal.

**Negative (-) Battery Terminal Nut
Tightening Torque:**

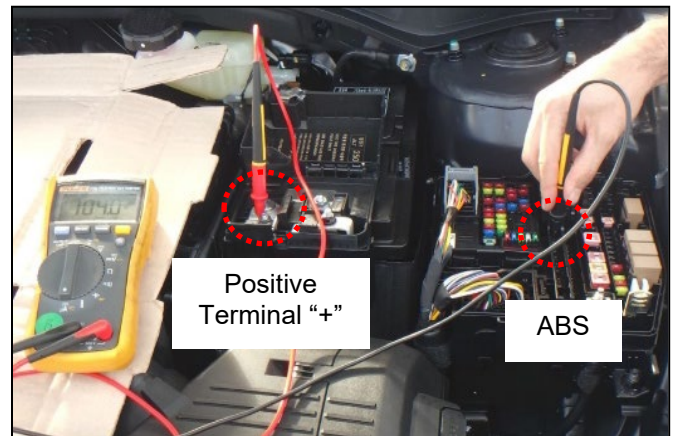
lb-ft	• 3.0-4.4
kgf.m	• 0.4-0.6
N.m	• 4.0-6.0

5. Set the multimeter to the 200 μ A setting.
Connect the probe leads as shown – black in the center **COM** terminal, red on the right side **V Ω mA** terminal.



6. Contact the red lead to the positive (+) battery terminal.

Contact the black lead to the appropriate ABS fuse location (see the *Fuse Box Measurement Point Guide*).



7. Measure the multimeter value/reading for at least 30 seconds. **The current draw value must stay consistent for a proper measurement.**

NOTICE

Take care to not damage the terminals.

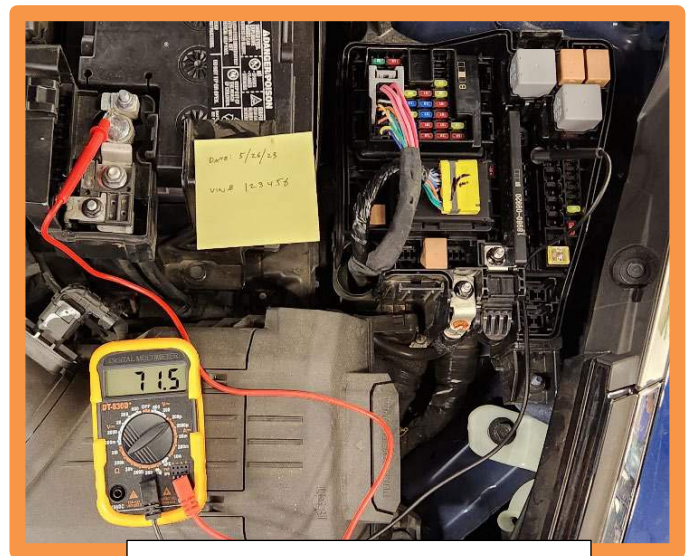
- 8.

STUI



Using STUI, take a photo showing the multimeter dark current reading, and the open junction box. Include the last 6 digits of the VIN and the date of repair on a piece of paper.

Upload the photo to STUI.



Example of STUI Photo

- 9.
- If current draw value is **below** the maximum dark current value as listed above in the **Service Inspection Guidance** on page 4:
 - Reinstall the removed parts in the reverse order. No further action is required.
 - If current draw value is **equal to OR over** the maximum dark current value as listed above in the **Service Inspection Guidance** on page 4:
 - Replace the Hydraulic Electronic Control Unit Assy (HECU) by referring to the shop manual.

**Information**

All part orders are on manual allocation.

STUI

If HECU is replaced: Using STUI, take a photo showing the newly installed HECU, along with the removed original HECU. Include the last 6 digits of the VIN and the date of repair on a piece of paper.

Upload the photo to STUI.



Example of STUI Photo

10. Reassemble vehicle in the reverse order of removal.
11. Start the engine. Confirm the “ABS”, “ESC” and “Brake” indicator lamps are not illuminated, clear any incidental DTCs and reprogram the customer’s radio preset stations.
12. The service procedure is now complete.