 <b>HYUNDAI</b> <b>Technical Service Bulletin</b>	GROUP Fuel System	NUMBER 23-FL-004H
	DATE JUNE 2023	MODEL SONATA (LFA)
<b>SUBJECT:</b>	FUEL PUMP FILTER WARRANTY EXTENSION (TXXS), INSPECTION AND REPLACEMENT	

**Description:** Certain 2015-2019MY Sonata (LFA) vehicles may intermittently exhibit reduced engine power, a “Crank/No Start” condition, and/or have DTC P1233 stored in the ECM due to an internally leaking fuel pump filter housing.

Hyundai is extending warranty coverage for fuel pump filter assembly repair or replacement to 15 years / 150,000 miles from the date of original retail delivery or date of first use (whichever occurs first) and is valid for original and subsequent owners.

Follow the service procedure to inspect the low-pressure fuel pump operation and replace the fuel filter if necessary.

**DTC Description:**

P1233: Low Pressure Fuel System – High Deviation between target and current pressure.



**Applicable Vehicles (Certain):**  
2015-2019 Sonata (LFA) vehicles produced 05/01/2014 - 09/30/2019 with VINs starting with "5NP"

**Parts Information:**

PART NAME	PART NUMBER	NOTES
FUEL FILTER ASSEMBLY	31112-C2500	Replace fuel filter only under these criterias: <ul style="list-style-type: none"> <li>• If vehicle has DTC P1233 stored in ECU.</li> <li>OR</li> <li>• If vehicle experiences related symptoms (reduced engine power or crank/no start) and fuel pump actuation test inspection is NO PASS.</li> </ul>
O-RING (Fuel Pump Top Plate)	31123-B9000	Replace if damaged during new fuel filter assembly installation.

**SST Information:**

DESCRIPTION	PART NUMBER	FIGURE
Fuel Pressure Gauge	09353-24100 (or equivalent)	
Fuel Pressure Gauge Adapter	09353-02100 (or equivalent)	

**Warranty Information:**

MODEL	OP CODE	OPERATION	OP TIME	CAUSAL P/N	NATURE CODE	CAUSE CODE
Sonata (LFA) • 15MY-19MY <b>2.0T &amp; 2.4L</b> • 15-17MY <b>1.6T</b>	20DA27R0	Fuel Filter Diagnosis - Inspection Only <b>(Procedure A)</b>	0.3 M/H	31112-C2500	B25	ZZ4
Sonata (LFA) • 18-19MY <b>1.6T</b>	20DA27R1	Fuel Filter Diagnosis - Inspection Only <b>(Procedure B)</b>	0.3 M/H			
Sonata (LFA) • All Engines	20DA27R2	Fuel Filter Diagnosis and Replacement <b>(Existing O-Ring reused)</b>	0.8 M/H			
Sonata (LFA) • All Engines	20DA27R3	Fuel Filter Diagnosis and Replacement <b>(New O-Ring installed)</b>	0.8 M/H			

**NOTE 1:** If the affected parts are still under factory warranty, submit as normal warranty. If the affected parts are out of factory warranty and within the extended warranty period, submit as a campaign claim type using the op codes listed above.

**NOTE 2:** If a part that is not covered by this TSB is found in need of replacement while performing TXXS 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:** Labor OP code 20DA27R3 will reimburse for new O-ring if existing O-ring is damaged during new fuel filter assembly installation.

**NOTE 4:** Op times include VIN, Mileage, and Part (if applicable) validation. **All claims submitted that have incomplete, illegible, or missing documentation are subject to debit.**

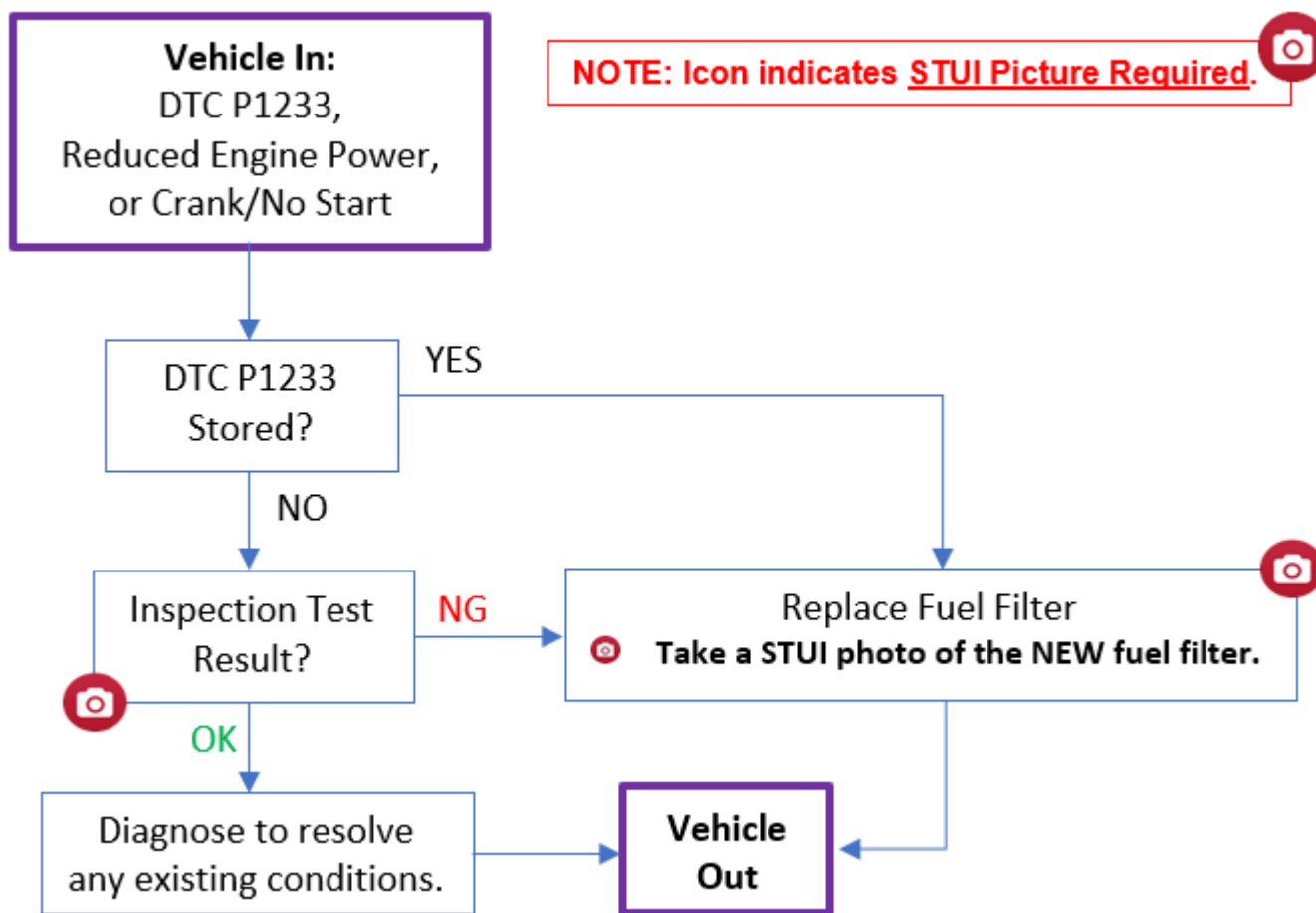
**NOTE 5:** The incident parts are subject to callback through normal Warranty Technical Center (WTC) parts return process. **Claim is subject to debit if the part is not returned.**

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

**Service Process Overview:**



**Service Procedure:**

1. Using GDS, check vehicle if DTC P1233 is present.

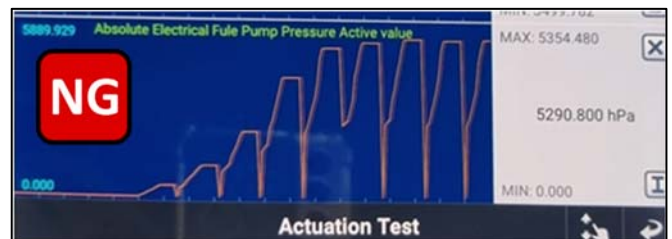
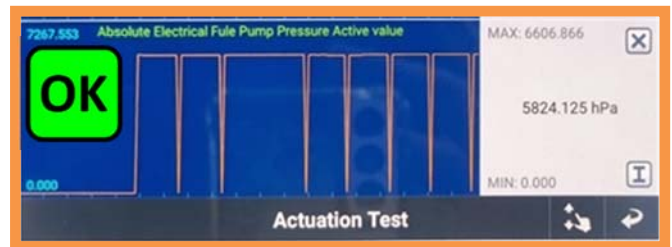
- If **DTC P1233 is detected**, then skip directly to **Fuel Filter Replacement**.
- If there are **other related symptoms** with no DTC P1233, then follow the **appropriate Inspection Test Procedure** below:

<ul style="list-style-type: none"> <li>• 15MY-19MY Sonata (LFA) w/ 2.0T &amp; 2.4L engine</li> <li>• 15-17MY Sonata (LFA) w/ 1.6T engine</li> </ul>	<b>Inspection Test Procedure A</b>
<ul style="list-style-type: none"> <li>• 18-19MY Sonata (LFA) w/ 1.6T engine</li> </ul>	<b>Inspection Test Procedure B</b>

**\*\*\* Inspection Test Procedure A \*\*\***

2. Shut engine "OFF" for at least 3 minutes.
3. Afterwards, turn ignition switch to "ON" position.  
**NOTE:** DO NOT start the engine.
4. Using the GDS, select "Data Analysis" and highlight the two items listed on right.
5. Select "Text" and change to "Graph".
6. Select "Actuation Test" tab and "Fuel Pump Relay" item.
7. Start the actuation of the Fuel Pump Relay and observe the "Absolute Electrical Fuel Pump Low Pressure Active Value" on the graph.

- Absolute Electrical Fuel Pump Low Pressure Active Value.
- Absolute Electrical Fuel Pump Low Pressure Set Point.



- **PASS:** Graph displays five (5) or more even and continuous bars of pressure [OK], then no further action is required. **Inspection is complete.** (Continue normal diagnosis of abnormal condition if it still exists.)

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Take a screenshot of the 'PASS' result using your particular tablet's screenshot save method and upload to STUI.

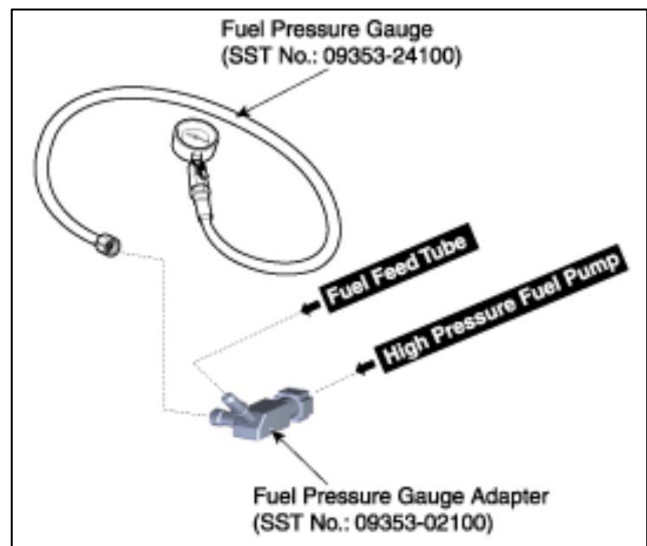
- **NO PASS:** Graph displays uneven bars [NG], then follow the **Fuel Filter Replacement** procedure at step 10.

**\*\*\* Inspection Test Procedure B \*\*\***

8. Release the residual pressure in fuel line by referring to the Shop Manual: **Engine Control / Fuel System > Fuel Delivery System > Repair Procedure > Release Residual Pressure in Fuel Line.**

**NOTE:** Follow all cautions according to the Shop Manual.

9. Check fuel pressure at idle by referring to the Shop Manual: **Engine Control / Fuel System > Fuel Delivery System > Repair Procedure > Fuel Pressure Test (Low Pressure System),** then shut engine off while monitoring the gauge.



- **PASS:** If fuel pressure gauge reading remains above 14.5 PSI for at least 1 minute, then **inspection is complete**. (Continue normal diagnosis of abnormal condition if it still exists.)

- **NO PASS:** If fuel pressure gauge reading drops below 14.5 PSI within 1 minute, then follow the **Fuel Filter Replacement** procedure at step 10.

**STUI**

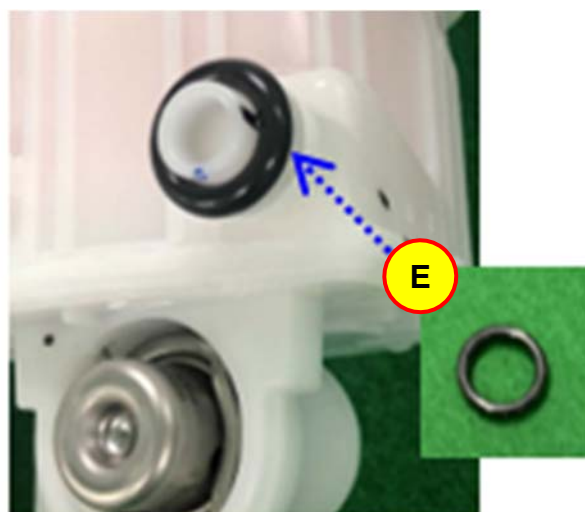
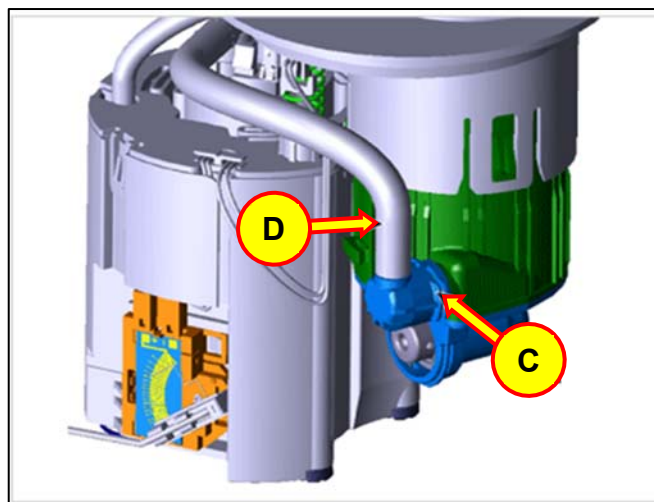


Using **STUI**, take a photo of the fuel gauge reading with last 6-digits of VIN and date of repair on a piece of paper. Ensure the picture is in focus and VIN with date of repair are legible. Upload the photo in **STUI**.

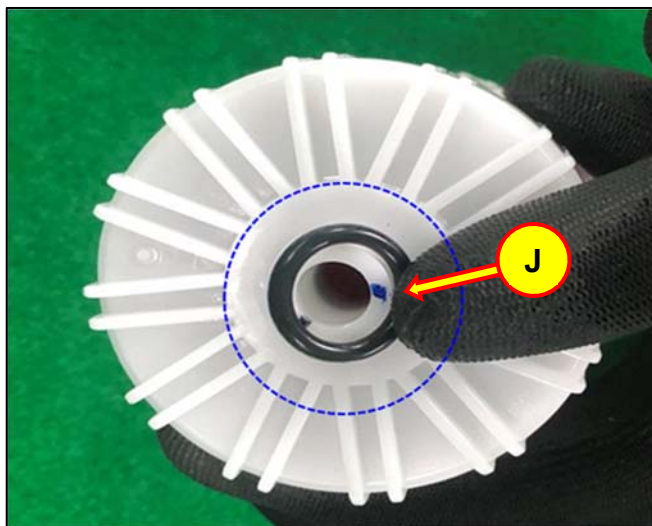
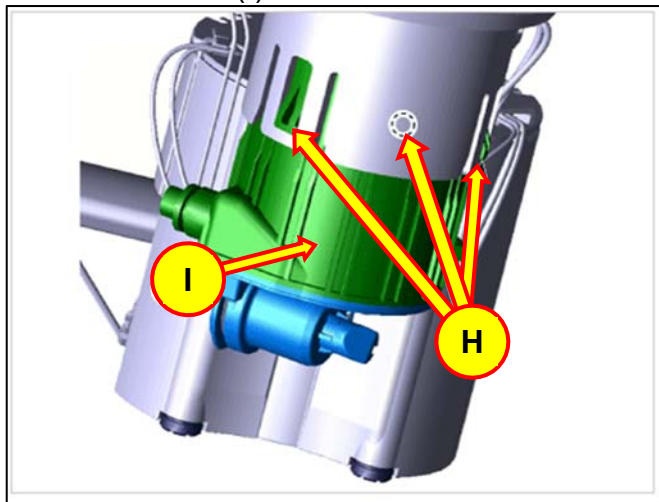
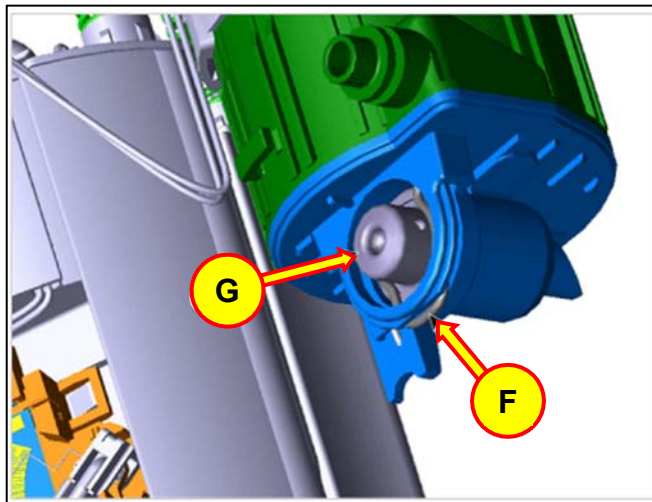
**\*\*\* Fuel Filter Replacement \*\*\***

10. Release the residual pressure in fuel line by referring to the Shop Manual: **Engine Control / Fuel System > Fuel Delivery System > Repair Procedure > Release Residual Pressure in Fuel Line**.
11. Remove the fuel pump assembly by referring to the Shop Manual: **Engine Control / Fuel System > Fuel Delivery System > Fuel Pump**.
12. Remove the fixing clip (C) and then disconnect the fuel tube (D).

**NOTE:** Do not discard this O-ring (E). The O-ring shown here must be reused.



- 13. Remove the fuel pressure regulator-fixing clip (F).
- 14. Remove the fuel pressure regulator (G) from the fuel filter.
- 15. Release the fixing hook (H), and then remove the fuel filter (I).



- 16. Remove the O-Ring (J) off the existing fuel filter assembly and install on the new fuel filter assembly.

**STUI**



Using STUI in the GDS, take a picture of the **NEW** fuel filter with last 6-digits of VIN and date of repair on a piece of paper.

Ensure the picture is in focus and **VIN with date of repair are legible.**

**Upload the photo in STUI.**



17. Install in the reverse order of removal.

**NOTES:**

- When installing the new fuel filter assembly, make sure the orientation of the fixing hook (H) shown in step 15 is correct.
- When reinstalling the fuel pump assembly into the fuel tank, inspect the O-ring (K) for the top plate and reuse. If O-ring appears damaged, then replace with a new part.
  - (O-Ring Part Number: 31123-B9000)

18. Repair Procedure is now complete.

