



Technical Service Bulletin

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| GROUP FUEL SYSTEM | NUMBER 23-FL-002H-1 |
| DATE JUNE 2023 | MODEL(S) SONATA (DN8(A)) SANTA FE (TM) SANTA CRUZ (NXT) TUCSON (NX4(A)) |

SUBJECT:MISFIRE DTC (P030X) – INTERNAL GDI INJECTOR LEAK REPAIR

This TSB supersedes 23-FL-002H to expand production ranges for all models and update Warranty Notes 1 & 3.

Description: This bulletin provides the diagnostic procedure for the GDI injector(s) in certain 21-23MY Sonata, 21-22MY Santa Fe, certain 22MY Santa Cruz, and certain 21-23MY Tucson equipped with 2.5L GDI engines with one or more misfire DTC(s) due to internally leaking GDI injector(s)

Applicable Vehicles with 2.5L GDI non-Turbo engines:

- Certain 2021~23MY Sonata (DN8) (VINS starting with KMH)
Produced from Feb.08,2021 to Jan.19,2023
- Certain 2021~22MY Sonata (DN8a) (VINS starting with 5NP)
Produced from Mar.01,2021 to Feb.14,2022
- Certain 2021~22MY Santa Fe (TMa) (VINS starting with 5NM)
Produced from Mar.01,2021 to Jul.15,2022
- Certain 2021~23MY Tucson (NX4) (VINS starting with KM8)
Produced from Jan.21.2021 – Nov.09.2022
- Certain 2022MY Tucson (NX4a) (VINS starting with 5NM)
Produced from Mar.01,2021 to Jul.11,2022
- Certain 2022MY Santa Cruz (NXT) (VINS starting with 5NT)
Produced from Mar.01,2021 to Jan.23,2022

Parts Information:

| MODEL | PART NAME | PART NUMBER | QTY |
|------------|----------------------|----------------|--|
| ALL MODELS | INJECTOR ASSY-FUEL | 35310-2S000QQH | *Must replace for any affected injector(s) |
| | PIPE-HIGH PRESSURE | 35305-2S000QQH | 1 (Must replace with new for reassembly) |
| | COMBUSTION SEAL RING | 35312-04AA0 | *Must replace for any reused injector(s) |
| | BOLT | 11403-08556K | 1-4 Required only for replaced injector(s) |

Warranty Information:

HMMA models (VINS start with '5NP', '5NM', or '5NT')

| MODEL | OP CODE | OPERATION | OP TIME | CAUSAL PART | NATURE CODE | CAUSAL CODE |
|-------|---------|-----------|---------|-------------|-------------|-------------|
|-------|---------|-----------|---------|-------------|-------------|-------------|

Circulate To: Service Manager, Sales Manager, Warranty Manager, Service Advisors, Technicians, Fleet Repair

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| | | | | | | |
|------------------|----------|------------------------------|---------|-------------|-----|-----|
| Sonata (DN8a) | 20DA14R1 | Replace 1 GDI fuel injector | 1.5 M/H | 35310-2S000 | W17 | ZZ5 |
| Santa Cruz (NXT) | 20DA14R2 | Replace 2 GDI fuel injectors | 1.4 M/H | 35310-2S000 | W17 | ZZ5 |
| Santa Fe (TMa) | 20DA14R3 | Replace 3 GDI fuel injectors | 1.4 M/H | 35310-2S000 | W17 | ZZ5 |
| Tucson (NX4a) | 20DA14R4 | Replace 4 GDI fuel injectors | 1.3 M/H | 35310-2S000 | W17 | ZZ5 |

HMC models(VINS start with 'KMH', 'KM8')

| MODEL | OP CODE | OPERATION | OP TIME | CAUSAL PART | NATURE CODE | CAUSAL CODE |
|------------------------------|----------|------------------------------|---------|-------------|-------------|-------------|
| Sonata (DN8) Tucson (NX4) | 20DA14R5 | Replace 1 GDI fuel injector | 1.5 M/H | 35310-2S000 | W17 | ZZ5 |
| | 20DA14R6 | Replace 2 GDI fuel injectors | 1.4 M/H | 35310-2S000 | W17 | ZZ5 |
| | 20DA14R7 | Replace 3 GDI fuel injectors | 1.4 M/H | 35310-2S000 | W17 | ZZ5 |
| | 20DA14R8 | Replace 4 GDI fuel injectors | 1.3 M/H | 35310-2S000 | W17 | ZZ5 |

NOTE 1: Submit claim on Claim Entry Screen as "Campaign Type".

NOTE 2: If a part that is not covered by this TSB is in need of replacement while performing this TSB, and the affected part is still under warranty, please submit a separate claim using the same repair order. If the 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 requested and not returned.**

Service Procedure:**STUI**

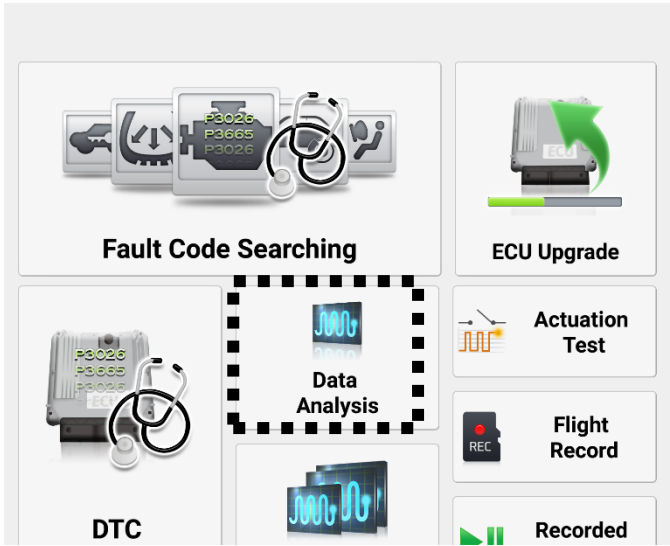
As outlined in the Digital Documentation Policy, all claims require VIN and Mileage validation through VCI connection or photo capture, AND photo capture of the repair Part according to the steps in the TSB. **All claims submitted that have incomplete, illegible, or missing documentation are subject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

1. If Check engine light (P030X) is stored, leaking GDI fuel injector may be the cause.
Follow the troubleshooting steps to correctly identify if the misfire is caused by a leaking GDI fuel injector.

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2. Using the GDS, select **DTC Analysis** and **ENGINE** menu. Record the DTC and Freeze Frame Data. Note which cylinder(s) are affected. Delete the DTC.

3. From the GDS home screen, select **Data Analysis** and menu. Then select **ENGINE**.



4. Start the engine and monitor the Fuel Pressure.

| Sensor Name(232) | Value | Unit | Link Up |
|---|-------|--------|---------|
| IN-Camshaft Position Deviation Integrator for Reference Check | 0.0 | °CRK*s | |
| Fuel Pressure | 16 | MPa | |
| Fuel Pressure Set Point Value | 16 | MPa | |
| Signal Voltage of Fuel Pressure Sensor | 2.4 | V | |

5. Shut off the engine and monitor the fuel pressure. If the pressure does not drop, this bulletin does not apply and continue with normal diagnostic for misfires.

If the pressure drops, replace the GDI fuel injector(s) on the affected cylinder(s).

| Sensor Name(232) | Value | Unit | Link Up |
|---|-------|--------|---------|
| IN-Camshaft Position Deviation Integrator for Reference Check | 0.0 | °CRK*s | |
| Fuel Pressure | 8 | MPa | |
| Fuel Pressure Set Point Value | 6 | MPa | |
| Signal Voltage of Fuel Pressure Sensor | 1.5 | V | |

6. Follow the repair procedure in the shop manual: **Engine Control / Fuel System → Engine Control System → Injector → Repair procedures → GDI Injector.**

7.

STUI



Using STUI, take photos of the injectors (1-4), high pressure fuel pipe replacement, new bolts, re-used injectors with new combustion ring seal with the last 6 digits of the VIN and the date of repair on a piece of paper. Upload the photos to STUI.



Install new combustion seals on all the reused injectors during reinstallation.

In addition, **replace the high pressure fuel pipe** with a new part after reinstallation of the fuel rail.

Refer to the shop manual section for complete service procedure:

Engine Control / Fuel System → Fuel Delivery System → Injector

8. Upload the freeze frame data for future claim verification.
9. Service procedure is now complete.