



HYUNDAI

Technical Service Bulletin

GROUP FUEL SYSTEM	NUMBER 21-FL-002H
DATE JUNE, 2021	MODEL(S) SONATA HYBRID (YF HEV)

SUBJECT: EVAP SYSTEM DTC(S) P0442, P0455 & P0456

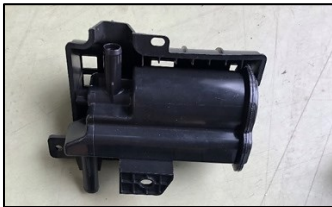
Description: Certain 2011-2015 Sonata Hybrid vehicles (YF HEV) may experience a check engine light illumination with an Evaporative System (EVAP) leakage related DTC P0442 - Small Leak, P0455 - Large Leak, or P0456 - Very Small Leak stored.

Salt particulate deposits can form inside the Natural Vacuum Leak Detection (NVLD) sensor, which may cause intermittent operation, prompting the check engine light illumination and DTC P0442, P0455, or P0456.

This bulletin provides the procedure to install a new Air Filter Kit and NVLD sensor with an updated filter to help prevent entry of the salt particulates.

Applicable Vehicles: Certain 2011 - 2015 Sonata Hybrid (YF HEV)

Parts Information:

Part Number	Description	Photo	Remarks
31450-4R050QQH 11~12MY	AIR FILTER KIT		All vehicles
31450-4R000QQH 13~15MY	AIR FILTER KIT		All vehicles
31480-4R100QQH	NVLD Pressure Sensor Assembly		All vehicles

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

Warranty Information:

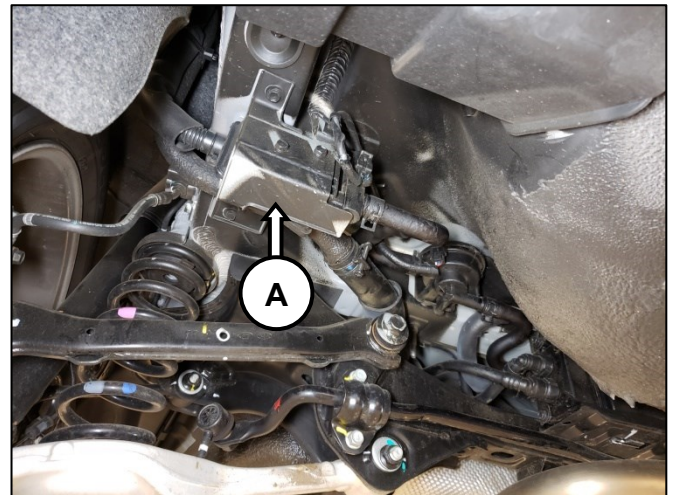
Model	Op. Code	Operation	Op. Time	Causal P/N	Nature Code	Cause Code
SONATA HYBRID (YF HEV)	10D019R0	AIR FILTER & NVLD REPLACEMENT	0.7 M/H	31480-4R100QQH	I3A	ZZ3

NOTE 1: Submit Claim on Campaign Claim Entry Screen

NOTE 2: If a part that is not covered by this campaign is found in need of replacement while performing this TSB 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.

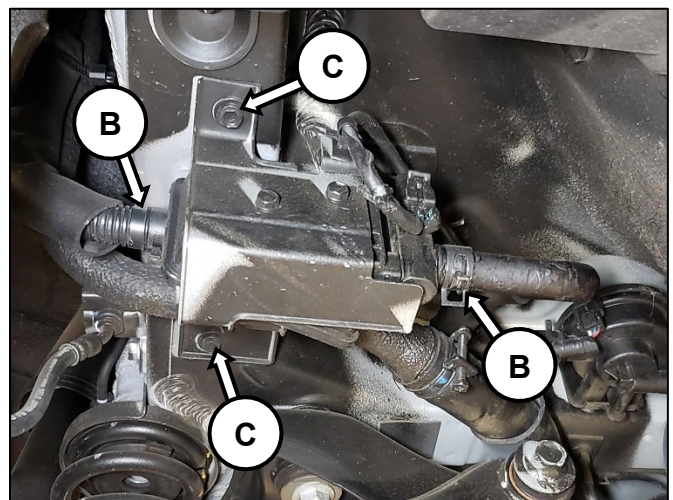
Service Procedure:**AIR FILTER KIT REPLACEMENT
(11-12MY)**

- 1.A Lift up the vehicle on a hoist and locate the fuel tank air filter assembly (A).

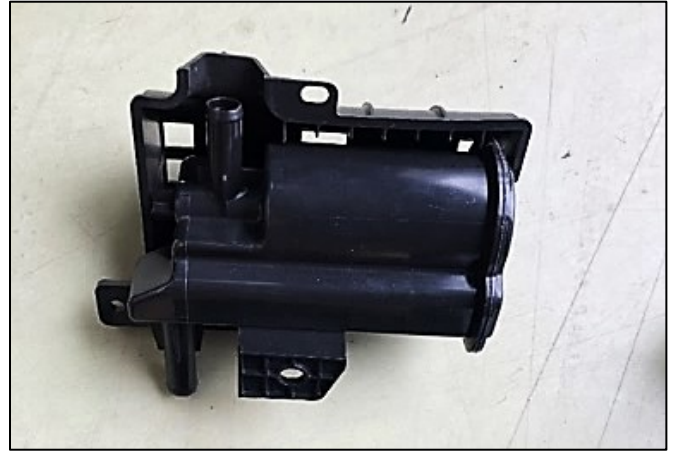


- 2.A Release the hose clamps and disconnect the ventilation hoses (B).

Loosen the fuel tank air filter mounting bolts (C) and remove the fuel tank air filter assembly.



- 3.A Install the new air filter.



- 4.A Reinstall the air filter and removed parts in reverse order of disassembly.

Fuel tank air filter installation bolt:

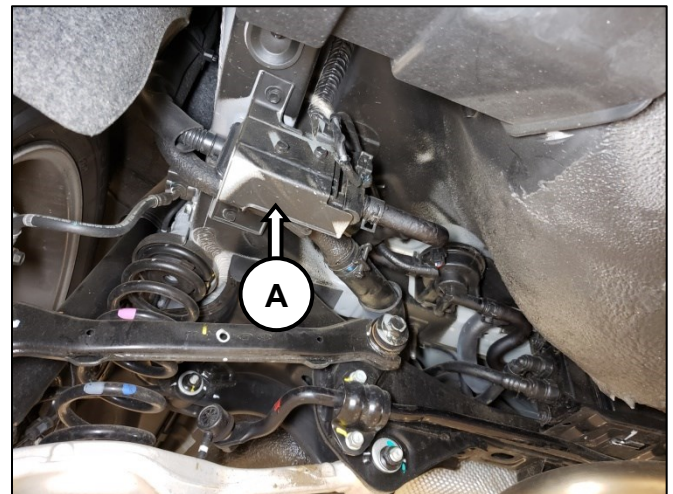
1.7 ~ 2.5 lb-ft (0.2~0.3 kgf.m, 2.3 ~ 3.3 N.m)

Go to step #6 for NVLD replacement.



AIR FILTER KIT REPLACEMENT (13-15MY)

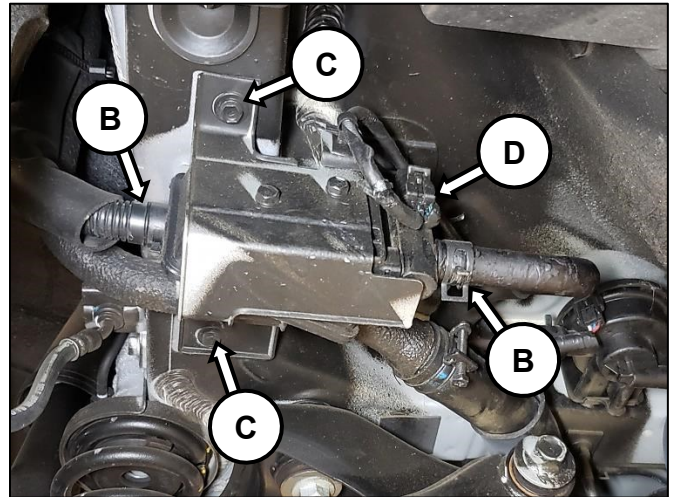
- 1.B Lift up the vehicle on a hoist and locate the fuel tank air filter assembly (A).



- 2.B Release the hose clamps and disconnect the ventilation hoses (B).

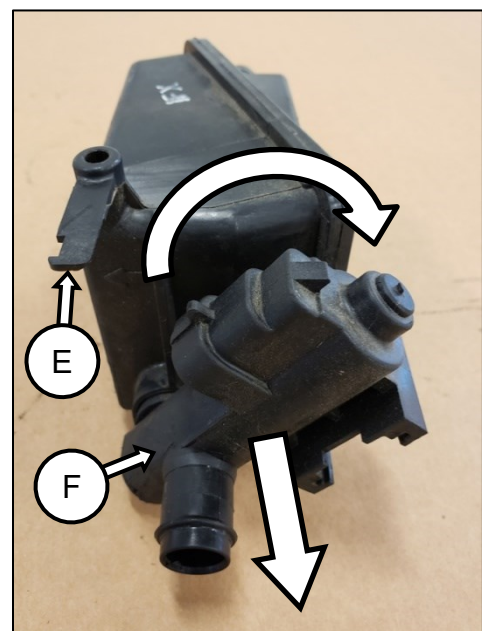
Disconnect the canister close valve (CCV) connector (D) and detach the harness CCV pig tail harness from the keyhole.

Loosen the fuel tank air filter mounting bolts (C) and remove the fuel tank air filter assembly.

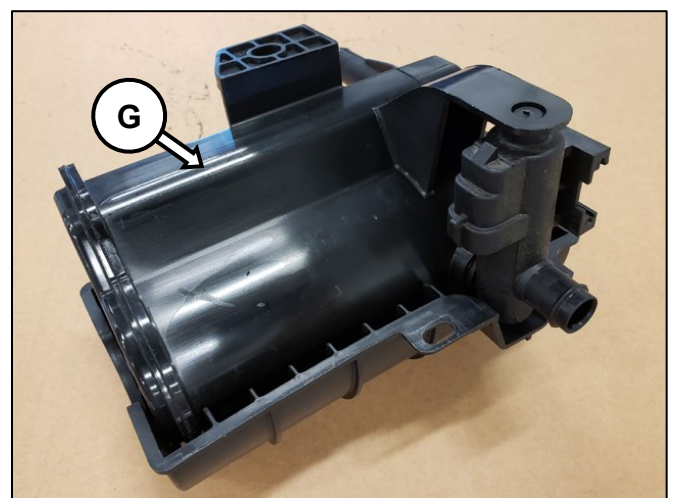


- 3.B Lift up the locking lever (E).

Turn the canister closed valve (F) clockwise approximately 30 degrees and pull away straight from the air filter to separate.



- 4.B Install the removed canister closed valve (CCV) to the new air filter (G) and insert the locking lever to secure.



- 5.B Reinstall the air filter, CCV, and removed parts in reverse order of disassembly.

Fuel tank air filter installation bolt:

1.7 ~ 2.5 lb-ft (0.2~0.3 kgf.m, 2.3 ~ 3.3 N.m)

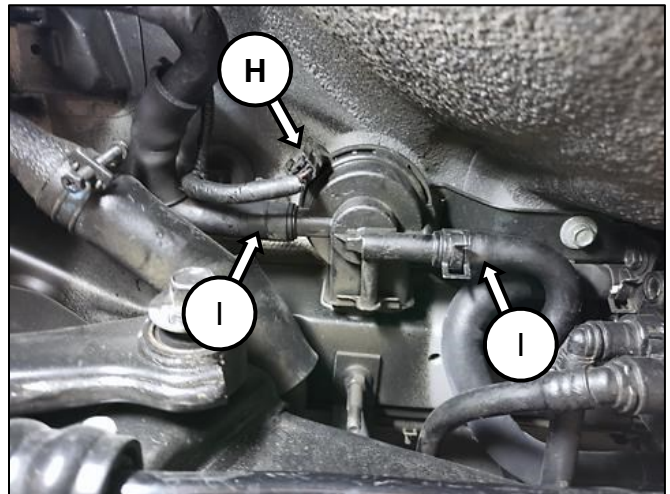
Continue to step #6 for NVLD replacement.



NVLD REPLACEMENT

6. Disconnect the NVLD connector (H).

Release the hose clamps and disconnect the vent hoses (I).



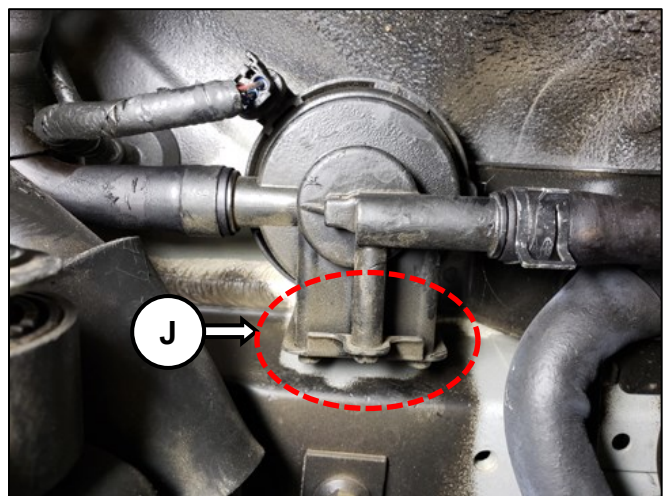
7. Loosen the NVLD mounting bolts (J) and remove the NVLD.

Note: Mounting bolt heads (8 mm) are facing towards the body. It is recommended to utilize a ratcheting wrench.

Install the new NVLD and reinstall the removed parts in reverse order of disassembly.

Tightening Torque:

1.7 ~ 2.5 lb-ft (0.2 ~ 0.3 kgf.m, 2.3 ~ 3.3 N.m)



GDS Evap Leakage Test:

8. Follow GDS instructions and perform a GDS Evap Leakage Test to confirm parts and hoses are installed properly.

S/W Management	
• EVAP Leakage Test	
Purpose	To check the evaporative system and fuel leakage when evaporative system related repair is done or component is replaced.
Enable Condition	1. Engine Idle 2. No DTC 3. Fuel Level : 20-70% 4. Battery voltage greater than 11V 5. 2 Min after the engine start 6. Coolant Temperature : 80°C(176°F)
Concerned Component	Purge Control Solenoid Valve(PCSV), Canister Close Valve(CCV), Fuel Tank Pressure Sensor(FTPS), Evap. Line
Concerned DTC	P0441, P0442, P0455, P0456, P2422
Fail Safe	Warning Lamp On
Etc	Wait at least 5 min. before re-performing Evap. leakage test.
OK	
Do not touch any system buttons while performing this function.	

S/W Management	
■ Evap. Leakage Test	
• [Evap. Leakage Test]	
This test is used for functional check of the evaporative system and leakage check.	
Information	
Test completed !	
No leak detected.	
OK	
Cancel	
Do not touch any system buttons while performing this function.	

9. Check for installed parts and hose connections if an EVAP leakage is detected.
- After making corrections, clear the DTC(s) and perform another GDS Evap Leakage Test.
- Repair procedure is completed if the EVAP Leakage Test does not detect any leakage.