



HYUNDAI

Technical Service Bulletin

GROUP CAMPAIGN	NUMBER 21-01-035H
DATE JUNE, 2021	MODEL(S) SONATA HYBRID (YF HEV)

SUBJECT: AIR FILTER AND NVLD REPLACEMENT
(SERVICE CAMPAIGN T6H)

★ IMPORTANT

*** Retail Vehicles ***

Dealers must perform this Service Campaign whenever an affected vehicle is in the shop for any maintenance or repair.

When a vehicle arrives at the Service Department, access Hyundai Motor America's Vehicle Information Screen (VIS) via WEBDCS to identify open Campaigns.

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

These conditions primarily occur in the California coastal areas that are subject to marine layer cloud cover. Salt particulate deposit can form inside the Natural Vacuum Leak Detection (NVLD) sensor which may cause intermittent operation prompting the DTC P0442, P0455 or P0456 and check engine light illumination.

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

In addition, replace NVLD sensor if DTC P0442, P0455 or P0456 is stored in the Engine Control Module (ECM).

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

Warranty Information:

Model	Op. Code	Operation	Op. Time	Causal P/N	Nature Code	Cause Code
SONATA HYBRID (YF HEV)	10D018R0	AIR FILTER REPLACEMENT	0.5 M/H	31450-4R000QQH	I3A	ZZ3
	10D018R1	AIR FILTER & NVLD REPLACEMENT	0.7 M/H	31480-4R100QQH	I3A	ZZ3

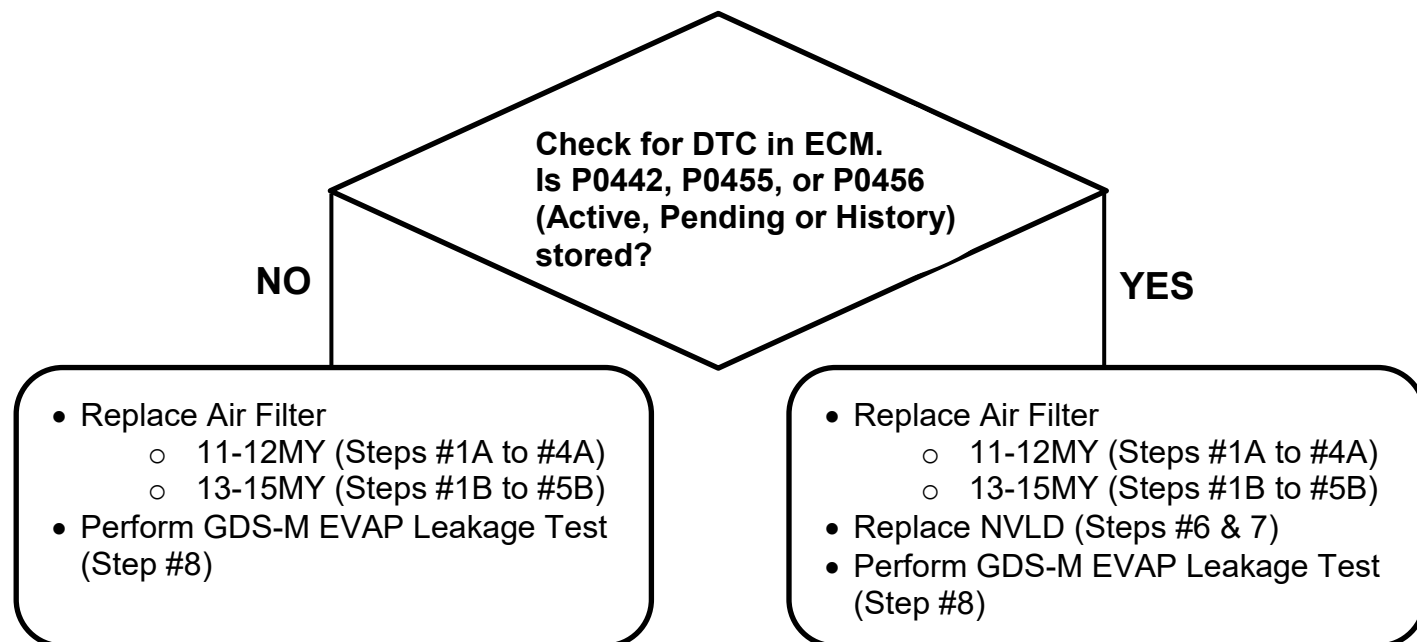
NOTE 1: Submit Claim on Campaign Claim Entry Screen.

NOTE 2: If a part is found in need of replacement while performing this service campaign 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.

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

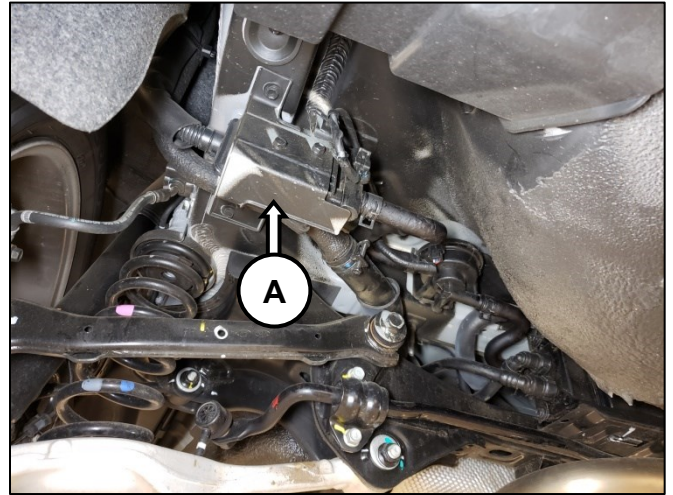
Parts Information:

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		Replace if DTC P0442, P0455, or P0456 is stored

Service Procedure:

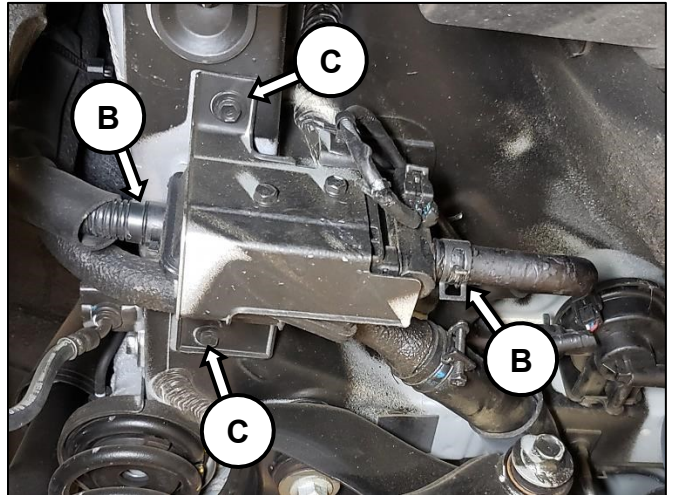
**AIR FILTER KIT REPLACEMENT
(11-12MY)**

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

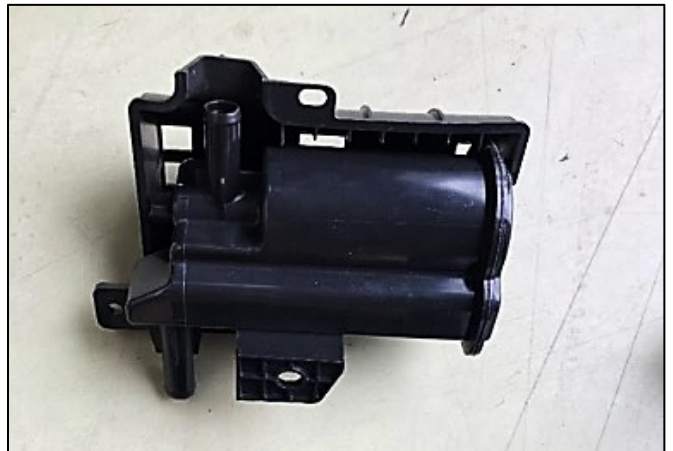


- 2.A Release the hose clamps and disconnect ventilation hoses (B).

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

Fuel tank air filter installation bolt:
2.3 ~ 3.3 N.m (0.2~0.3 kgf.m, 1.7 ~ 2.5 lb-ft)

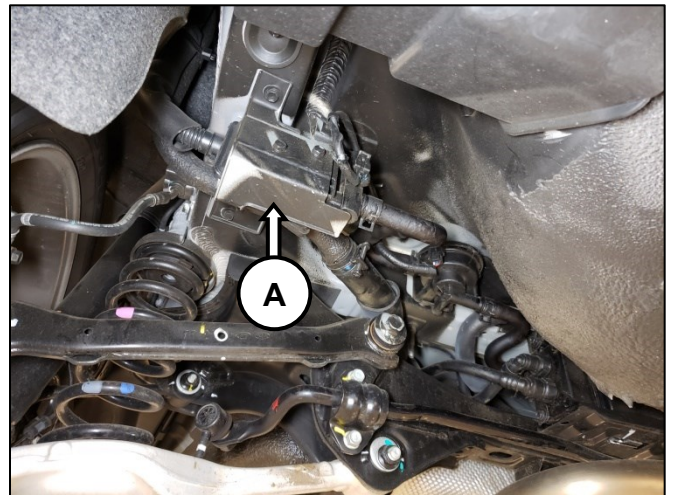
Go to step #6 if NVLD replacement is necessary

Go to step #8 if NVLD replacement is not necessary.



AIR FILTER KIT REPLACEMENT (13-15MY)

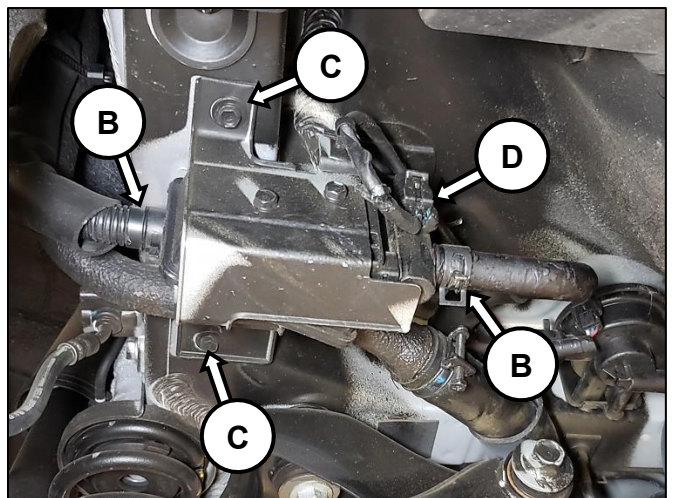
- 1.B Lift up the vehicle on a hoist and locate fuel tank air filter assembly (A).



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

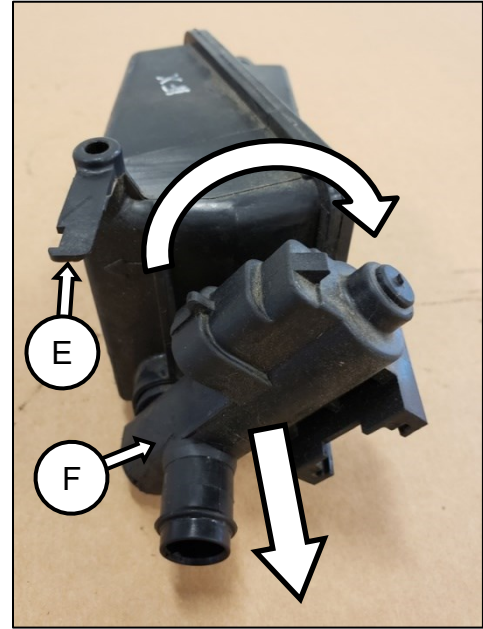
Disconnect canister close valve (CCV) connector (D) and detach the harness CCV pig tail harness from key hole.

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

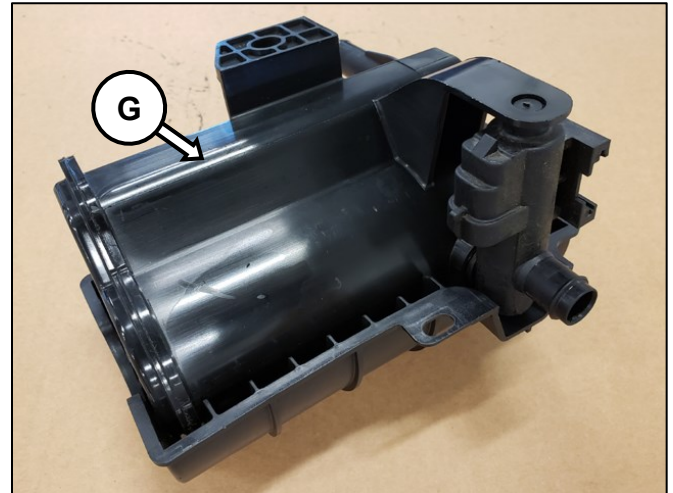


- 3.B Lift up the locking lever (E).

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



- 4.B Install the removed CCV to the new air filter (G) and place in the locking lever to secure.



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

Fuel tank air filter installation bolt:
2.3 ~ 3.3 N.m (0.2~0.3 kgf.m, 1.7 ~ 2.5 lb-ft)

Go to step #6 if NVLD replacement is necessary

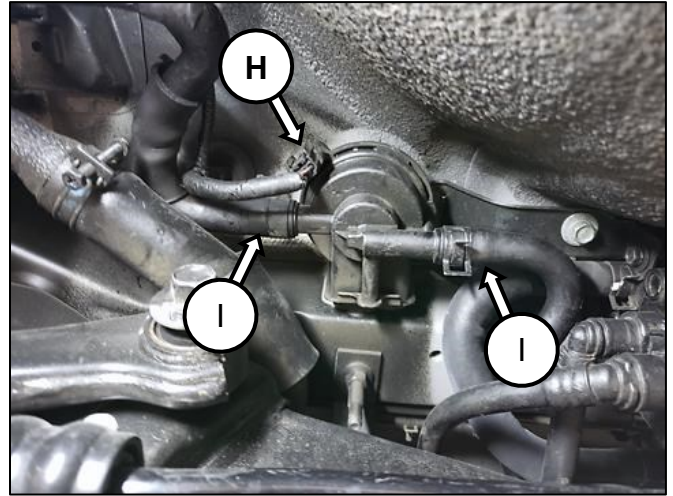
Go to step #8 if NVLD replacement is not necessary.



NVLD REPLACEMENT

6. Disconnect the NVLD connector (H).

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

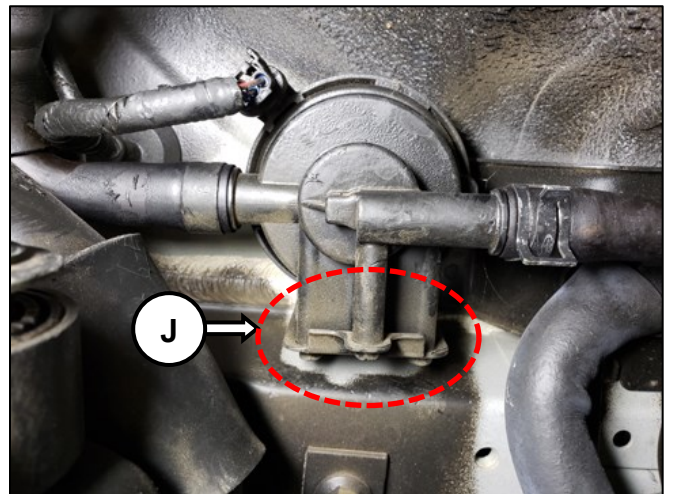


7. Loosen the NVLD mounting bolts (J) and remove the NVLD.

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 removal.

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



GDS Evap Leakage Test:

8. Follow GDS instructions and perform 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.
<div>OK</div>	
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.	
<div>OK</div>	
<div>Cancel</div>	
Do not touch any system buttons while performing this function.	

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