



HYUNDAI

Technical Service Bulletin

GROUP CAMPAIGN	NUMBER 20-01-020H
DATE MAY, 2020	MODEL(S) SONATA HYBRID (LF HEV)

SUBJECT: AIR FILTER KIT AND NVLD REPLACEMENT (SERVICE CAMPAIGN T4W)

★ IMPORTANT

*** Dealer Stock and 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 2016-2019 Sonata Hybrid (LF HEV) may experience check engine light illumination with DTC P0456 - Evaporative System (EVAP) - 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 P0456 and check engine light.

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 P0456 found stored in the Engine Control Module (ECM).

Applicable Vehicles: Certain 2016-2019 Sonata Hybrid (LF HEV)

Parts Information:

Part Number	Description	Photo	Remarks
31450-E6501QQH	AIR FILTER KIT - Vent pipe, mounting brackets and hoses assembly - Filter with inlet hose - Band strap		All vehicles
31480-4R100QQH	NVLD Pressure Sensor Assembly		Replace if DTC P0456 is stored
00232-19035	UNDERCOATING AEROSOL (Non-Rubberized Type)		One canister can be applied to 10 vehicles

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

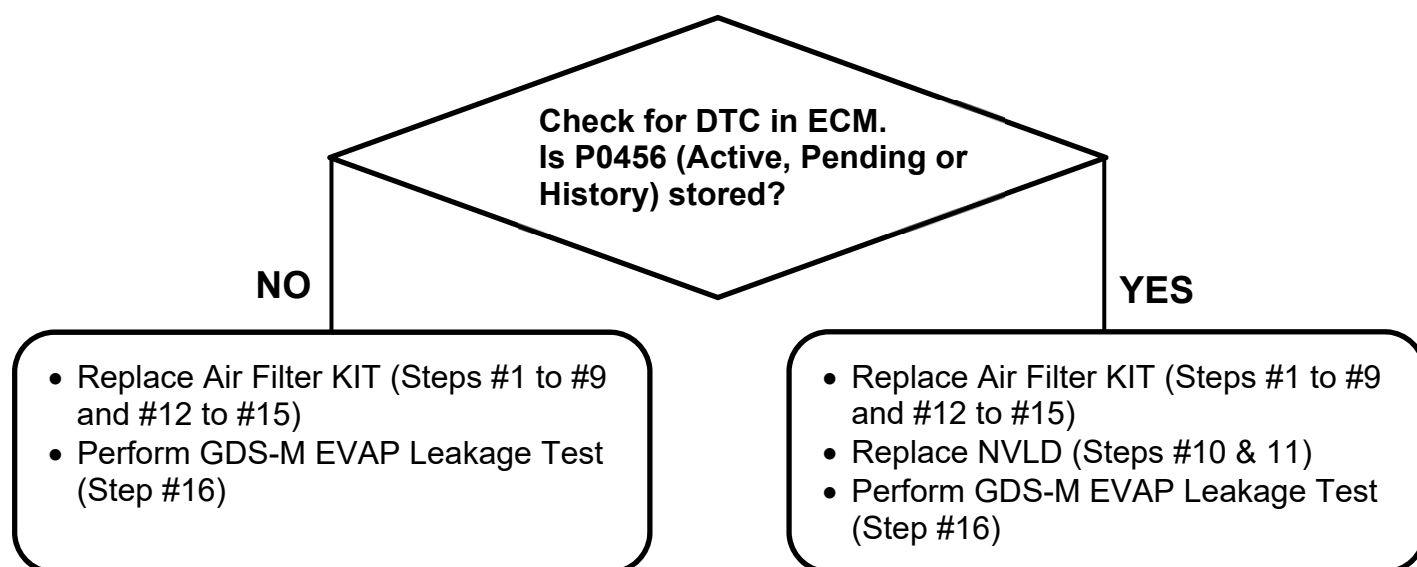
Warranty Information:

Model	Op. Code	Operation	Op. Time	Causal P/N	Nature Code	Cause Code
SONATA HYBRID (LF HEV)	00D028R0	AIR FILTER KIT REPLACEMENT	1.0 M/H	31450-E6501QQH	I3A	ZZ3
	00D028R1	AIR FILTER KIT & NVLD REPLACEMENT	1.3 M/H	31480-4R100QQH	I3A	ZZ3

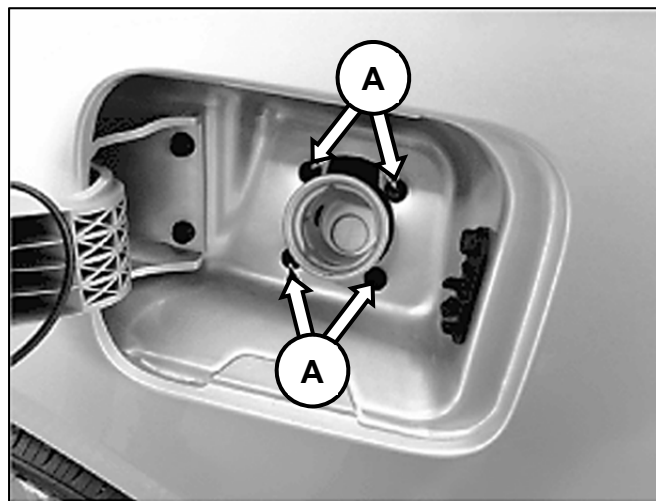
NOTE 1: Submit Claim on Campaign Claim Entry Screen.

NOTE 2: If a part is found in need of replacement while performing Service Campaign T4W 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.

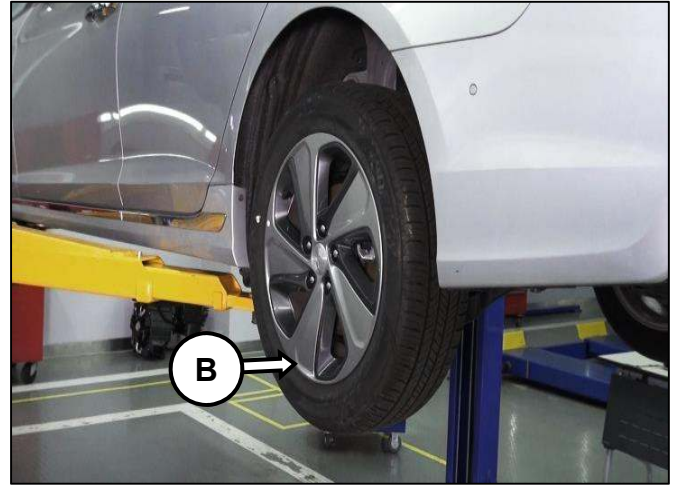
NOTE 3: Undercoating aerosol application will be reimbursed as sublet under both labor operations.

Service Procedure:**A. AIR FILTER KIT REPLACEMENT**

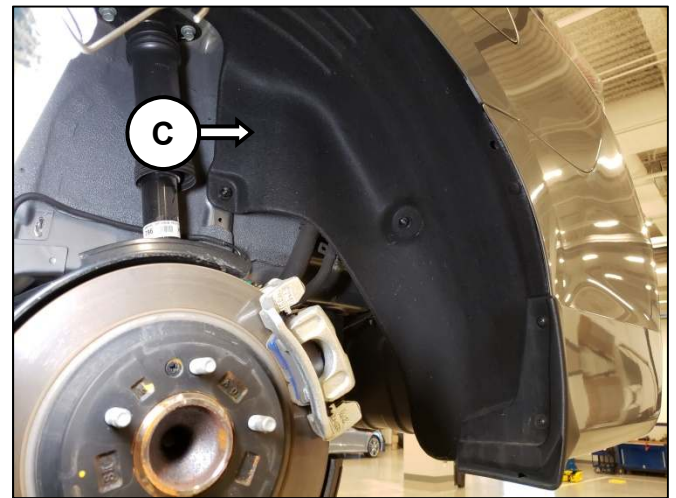
1. Open the fuel filler door and loosen the filler neck mounting bolts (A).



2. Lift up the vehicle and remove the left rear tire & wheel assembly (B).



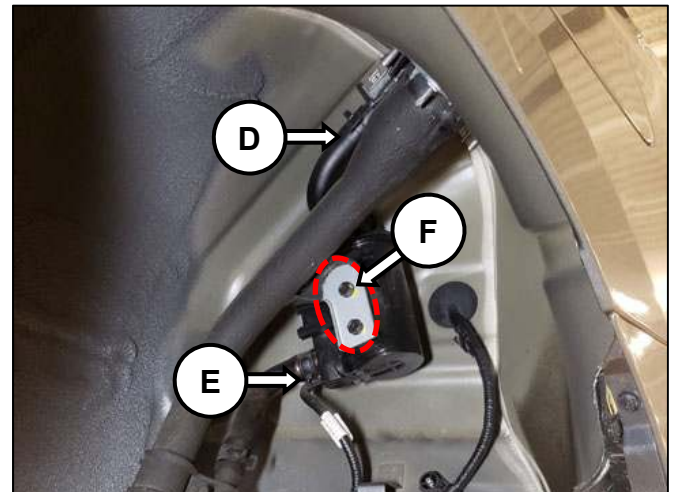
3. Remove the left rear wheel guard (C).



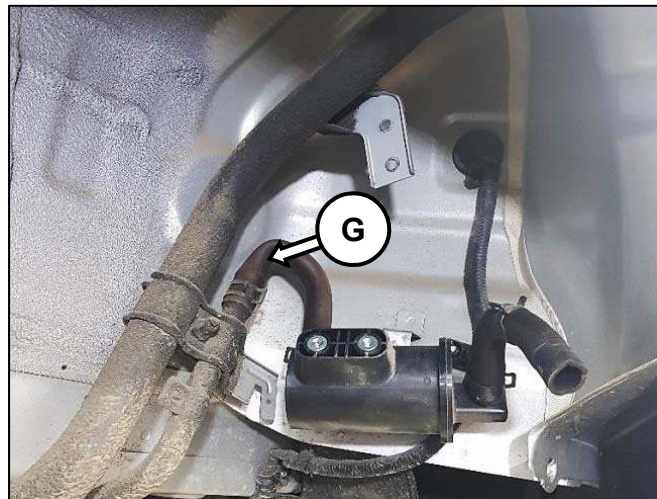
4. Release the hose clamp and disconnect the upper hose (D).

Disconnect the Canister Close Valve (CCV) connector (E).

Loosen the air filter mounting bolts (F).



5. Release the hose clamp.
Disconnect the lower hose (G) and air filter
from the vent line.



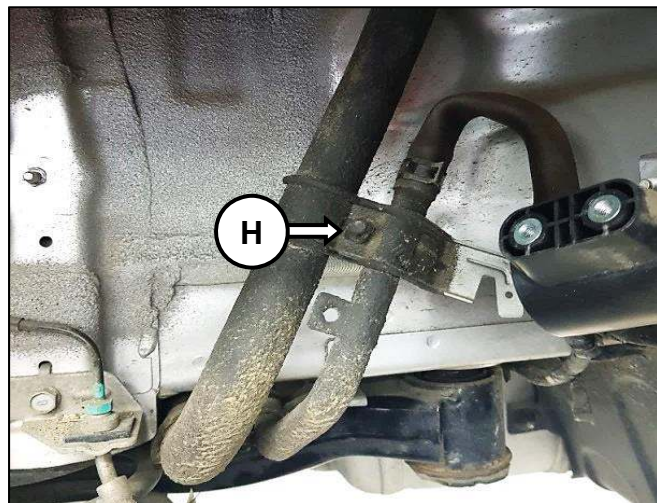
NOTICE

Utilize a ratcheting wrench type or low profile ratchet and socket combo where mounting bolts accessibility is limited.

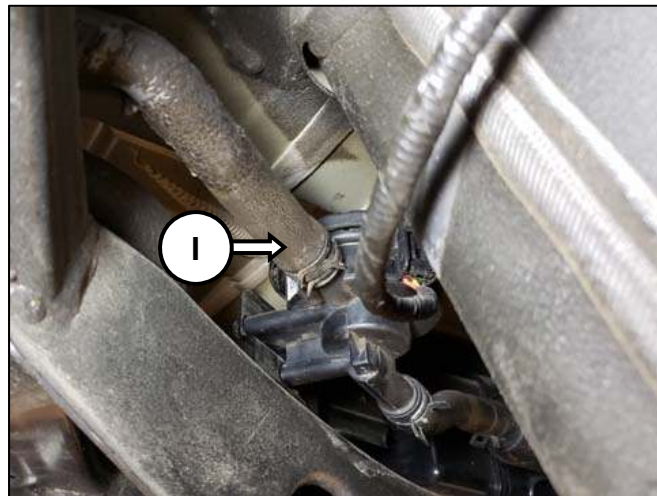
Scrub off the undercoating material from the bolt heads and threads for ease of loosening bolts.

6. Loosen the upper vent line bracket clamping
bolt (H).

Note: Mounting bolt head is facing towards
the body.

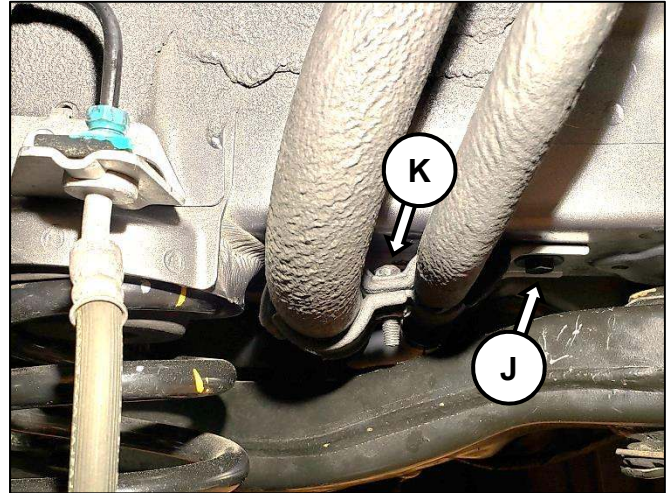


7. Release the hose clamp and disconnect the
ventilation hose (I) from the Nature Vacuum
Leak Detection (NVLD) valve.



8. Loosen the lower vent line bracket mounting bolt (J).

Then pull away the lines slightly and loosen the clamping bracket bolt (K).



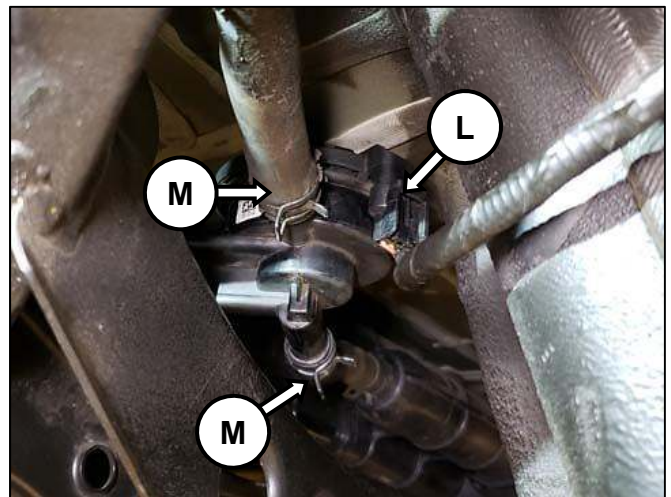
9. Remove the filler neck vent line, upper hose and air filter.



B. NVLD REPLACEMENT

10. Disconnect the NVLD connector (L).

Release the hose clamp and disconnect the vent hoses (M).

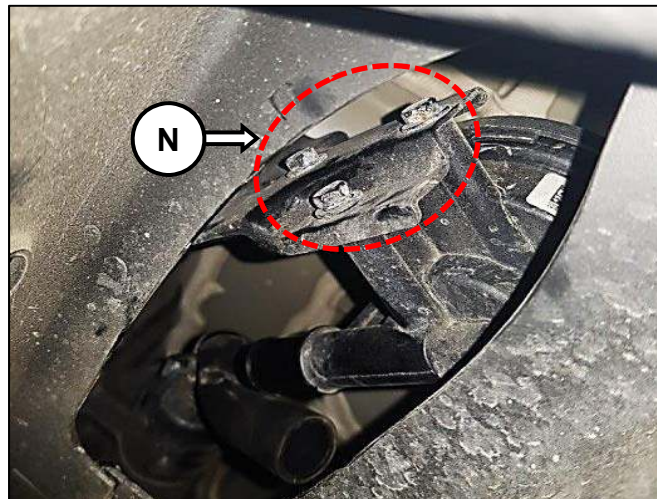


11. Loosen the NVLD mounting bolts (N) and remove the NVLD.

Tightening Torque

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

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



- 12.

NOTICE

Require to separate and reuse the CCV which is part of the removed air filter.

Lift up the locking lever, rotate CCV 30 degrees and then pull away to release the CCV.

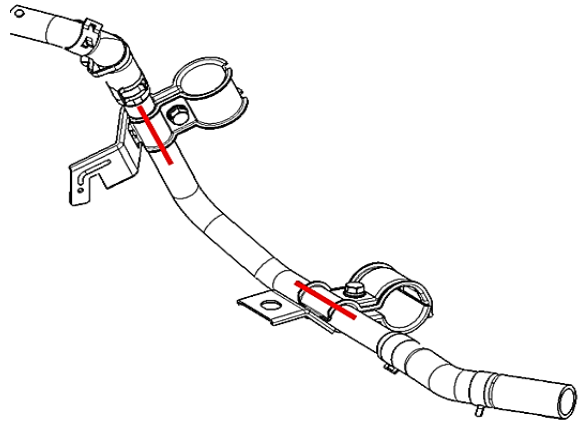


13. Install the new air filter KIT and reinstall the removed parts, including CCV, in reverse order of removal.



NOTICE

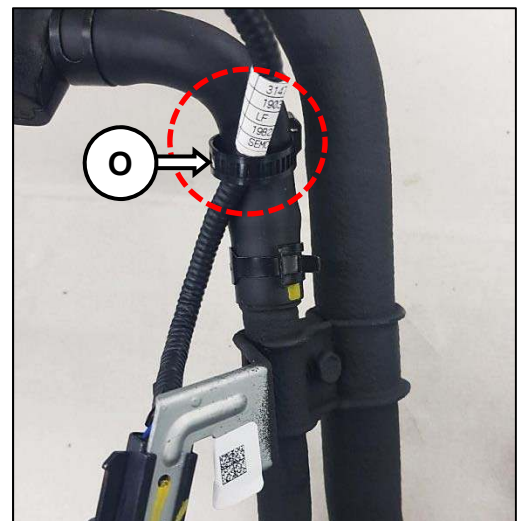
Follow markings to ensure vent pipes and brackets are aligned properly.



14. Spray the black undercoating aerosol evenly to each vent line bracket for approximately 10 seconds.



15. After spaying, tie the CCV wiring and vent pipe using band strap (O).



C. GDS Evap Leakage Test:

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

16.

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.	

17. 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.