



GROUP FUE	MODEL 2017-2019MY Optima (JF HEV)
NUMBER 046	DATE June 2020

TECHNICAL SERVICE BULLETIN

**SUBJECT: COMBINATION TSB / SERVICE ACTION: AIR FILTER
AND NVLD REPLACEMENT (SA421)**

This bulletin provides the procedure to perform an evaporative leak test and replace the fuel tank air filter, and, if necessary, the Natural Vacuum Leak Detector (NVLD) on some Optima (JF HEV) vehicles, produced from June 27, 2016 through January 7, 2019, which may experience an evaporative leak concern with DTC P0456. Before conducting the procedure, verify that the vehicle is included in the list of affected VINs.

- If DTC P0456 is not active, follow the procedure in this bulletin to replace only the fuel tank air filter on page 2.
- If DTC P0456 is active, replace both the fuel tank air filter and NVLD on page 4.

For vehicles not on the Affected Vehicles list, but still experiencing the issue described above, perform the procedure outlined in this bulletin and submit a warranty claim per “customer concern” (Standard TSB) claim information on page 8.

DTC P0456: Evaporative Emission System-Leak Detected (Very Small Leak)

*** NOTICE**

A Service Action is a repair program without customer notification that is performed during the warranty period. Any dealer requesting to perform this repair outside the warranty period will require DPSM approval.

Repair status for a VIN is provided on WebDCS (Service → Warranty Coverage → Warranty Coverage Inquiry → Campaign Information). Not completed Recall / Service Action reports are available on WebDCS (Consumer Affairs → Not Completed Recall → Recall VIN → Select Report), which includes a list of affected vehicles.

This issue number is SA421.

Printed TSB copy is for reference only; information may be updated at any time.
Always refer to KGIS for the latest information.

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

Evaporative Leakage Test Procedure:

Using a KDS, perform an evaporative leakage test: Home → S/W Management → Engine Control → Evap. Leakage Test. Ensure the “Enable Conditions” are met.

- If no leak is detected, perform the fuel tank air filter replacement procedure below.
- If a leak is detected and DTC P0456 is active, perform the fuel tank air filter replacement and the NVLD replacement procedures. Prior to performing the procedures, clear the DTC.

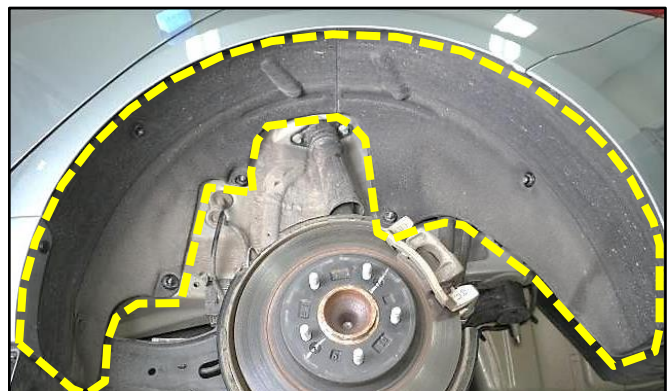
S/W Management	
• EVAP Leakage Test	
Purpose	To check the evaporative system and fuel leakage when evaporative system related repair is done or component is replaced.
Enable Condition	1. Engine Idle 2. No DTC 3. Fuel Level : 20-70% 4. Battery voltage greater than 11V 5. 2 Min after the engine start 6. 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	

Fuel Tank Air Filter Replacement Procedure:

1. Raise the vehicle on a lift and remove the left rear wheel.



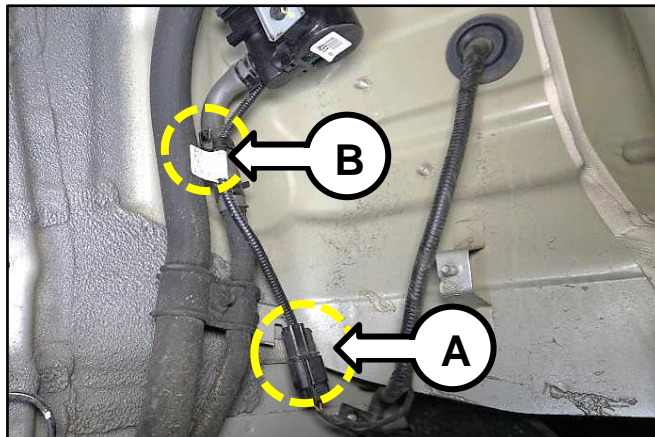
2. Remove the left rear inner fender liner.



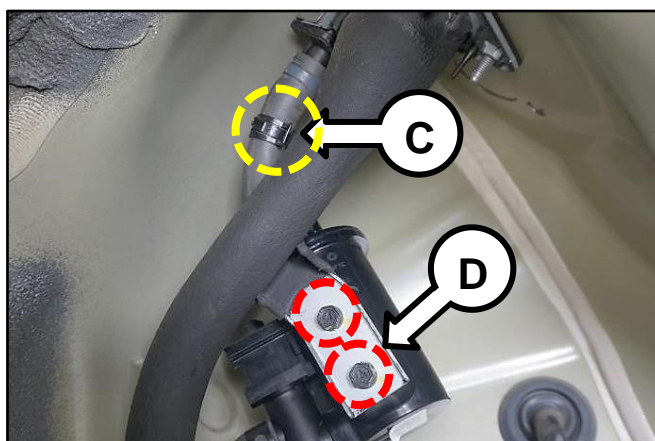
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3. Release the fuel tank air filter assembly connector (A), and detach the retaining clip (B).



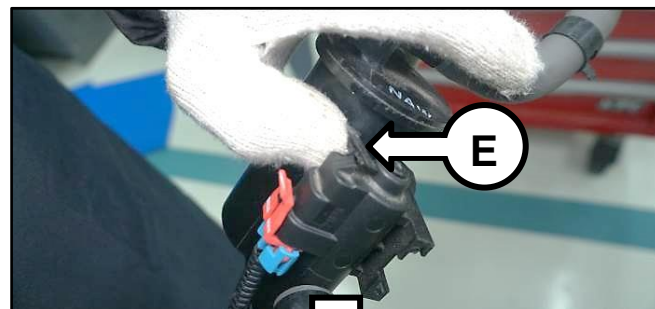
4. Release the upper fuel tank air filter hose clamp (C), and detach hose from the air drain case.



5. Loosen the two (2) retaining bolts (D) to remove the fuel tank air filter assembly.

Torque specification for bolt (D):
2.8 – 5.7 ft.lb. (3.9 – 7.8 N.m,
0.4 – 0.8 kgf.m)

- 6a. Release the canister close valve locking clip (E).



- 6b. Remove the canister close valve from the fuel tank air filter by turning the valve clockwise.



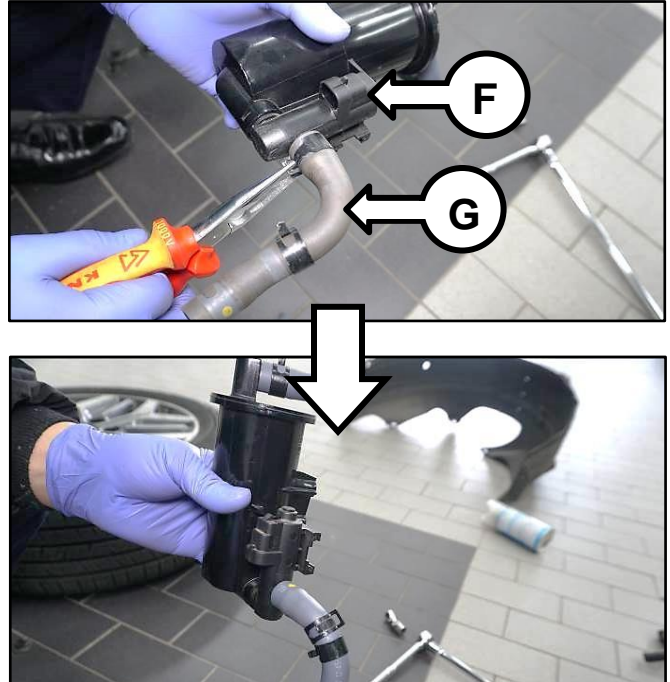
★ NOTICE

Do Not discard the canister close valve.

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- Attach the removed canister close valve to the new fuel tank air filter assembly (F) and install the new lower hose (G) and secure with clamp.



- Install all removed parts in the reverse order of removal.
- If replacing the NVLD, proceed with NVLD Replacement below.

If **NOT** replacing the NVLD, verify proper operation of the vehicle.

NVLD Replacement Procedure:

- Remove the four (4) rear stabilizer bar retaining bolts (A).

Torque specification for bolt (A):
72.3 – 86.7 ft.lb. (98.0 – 117.6 N.m,
10.0 – 12.0 kgf.m)



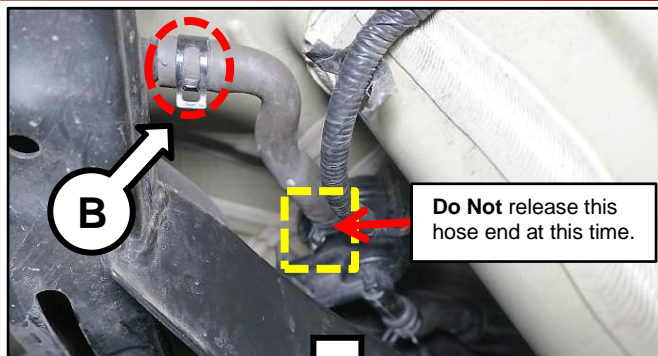
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- 2a. Release both upper and lower hose clamps (B) of the NVLD.

❗ IMPORTANT

Do Not remove the upper hose end attached to the NVLD at this time outlined in yellow.

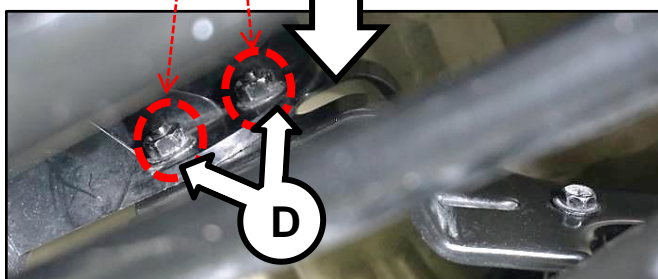
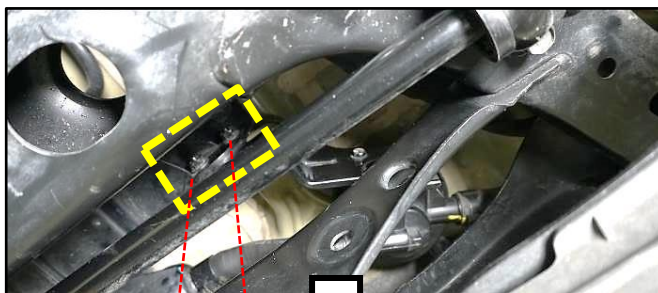


- 2b. Disconnect the NVLD connector (C).



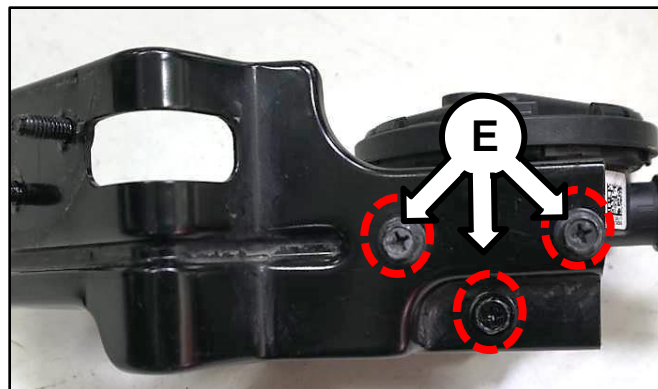
3. Loosen the two (2) NVLD bracket retaining bolts (D).

Torque specification for bolt (D):
2.8 – 5.7 ft.lb. (3.9 – 7.8 N.m,
0.4 – 0.8 kgf.m)



4. Loosen the three (3) bracket bolts (E) to remove the NVLD.

Torque specification for bolt (E):
2.8 – 5.7 ft.lb. (3.9 – 7.8 N.m,
0.4 – 0.8 kgf.m)



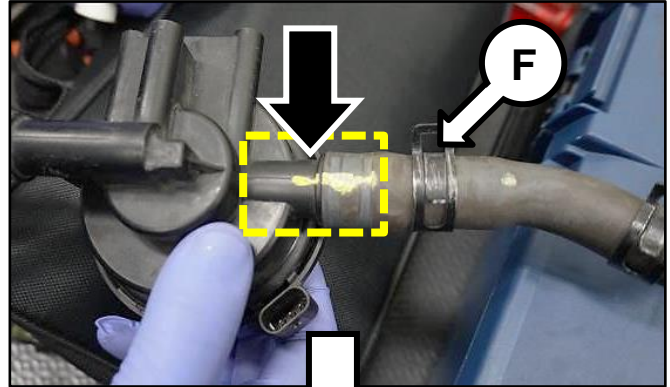
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- 5a. Release the NVLD hose clamp (F).
- 5b. Using a paint marker, mark the hose to valve alignment as shown; then remove the hose. **Do Not** discard hose.

*** NOTICE**

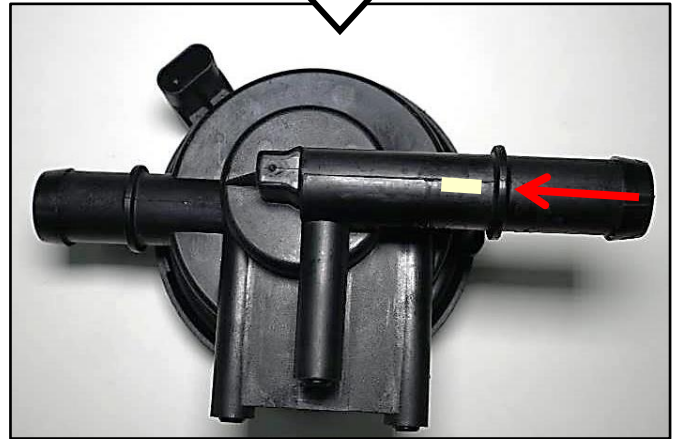
Do Not remove the NVLD hose prior to marking.



6. Install the new NVLD in the reverse order of removal.

i IMPORTANT

Ensure to match the alignment the removed NVLD hose to the new valve.



7. Verify proper operation of the vehicle.


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AFFECTED VEHICLE RANGE:

Model	Production Date Range
Optima (JF HEV)	June 27, 2016 to January 7, 2019

REQUIRED PART:

Part Name	Part Number	Figure	Qty.
Fuel Tank Air Filter Kit	<u>SA421</u> : 31450 A8501QQK <u>FUE046</u> : 31450 A8501FFF		1
Natural Vacuum Leak Detector (NVLD)	<u>SA421</u> : 31480 4R100QQK <u>FUE046</u> : 31480 4R100FFF		1

WARRANTY INFORMATION:

N Code: N99 C Code: C99

Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
V	31030 A8500	0	(SA421) Air Filter Kit Replacement	200028R0	0.5 M/H	31450 A8501QQK	1
			(SA421) Air Filter Kit & NVLD Replacement	200028R1	0.8 M/H	31450 A8501QQK 31480 4R100QQK	

*** NOTICE**

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SA421 when accessing the WebDCS system.



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STANDARD WARRANTY CLAIM INFORMATION:

Use this information only to file a warranty claim for vehicles for which:

1. A customer complains of the same concern, as described on Page 1.
2. The VIN does not appear on the Affected Vehicles list for Service Action 395.
3. The vehicle model year and production date range are as identified in this bulletin.

N Code: IA3 C Code: ZZ3

Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
W	31030 A8500	0	Evap Leak Test & Fuel Tank Air Filter Replacement	31450F03	0.5 M/H	31450 A8501FFF	1
			Evap Leak Test, Fuel Tank Air Filter & NVLD Replacement	31450F04	0.8 M/H	31450 A8501FFF 31480 4R100FFF	