



GROUP Safety Recall Campaign	MODEL 2020-2021MY Stinger (CK)
NUMBER SC198	DATE September 2020

SAFETY RECALL CAMPAIGN

SUBJECT:

FUEL PUMP INSPECTION AND JET NOZZLE HOUSING REPLACEMENT (SC198)

This bulletin provides the procedure to inspect and if necessary, replace the fuel pump's jet nozzle housing assembly on some 2020-2021MY Stinger (CK) vehicles equipped with either 3.3L T-GDI LAMBDA II or 2.0L T-GDI THETA II engines produced from June 3, 2020 through July 22, 2020. During production of the fuel pump's jet nozzle housing, a plastic burr may remain after the molding process potentially blocking the nozzle. A blocked nozzle can result in an insufficient supply of fuel to the engine. An insufficient supply of fuel to the engine can result in a loss of motive power increasing the risk of a crash. Before conducting the procedure, verify that the vehicle is included in the list of affected VINs.



Fuel Pump Jet Nozzle Housing

* NOTICE

There is no charge to the vehicle owner for this repair. Under applicable law, you may not sell or otherwise deliver any affected vehicle until it has been repaired pursuant to the procedures set forth in this bulletin.

* NOTICE

To assure complete customer satisfaction, always remember to refer to WebDCS Warranty Coverage (validation) Inquiry Screen (Service → Warranty Coverage → Warranty Coverage Inquiry) for a list of any additional campaigns that may need to be performed on the vehicle before returning it to the customer.

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

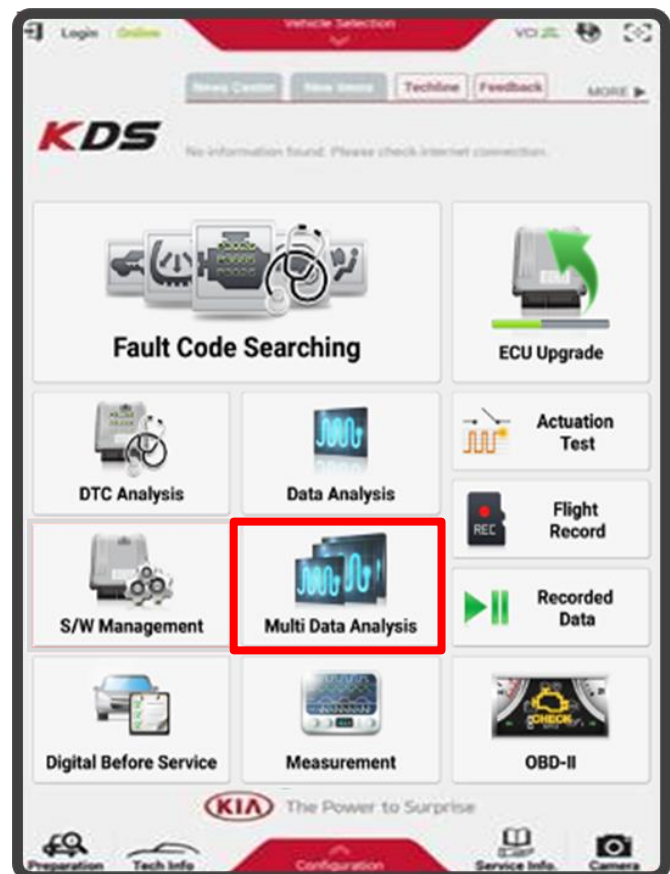
Inspection Procedure:

❗ IMPORTANT

Prior to begin the inspection, ensure that the fuel level gauge needle is positioned between $\frac{1}{4}$ to $\frac{3}{4}$ filled as shown, in order to successfully perform the inspection outlined below. If fuel tank is above $\frac{3}{4}$ filled, refer to the Fuel Removal Procedure outlined on page 9.



1. Activate the Electronic Parking Brake (EPB).
2. Turn the ignition to 'ON'.
Note: Engine Off – not running.
3. Set the shifter to the Neutral 'N' position.
4. Install KDS and select 'Multi Data Analysis'.



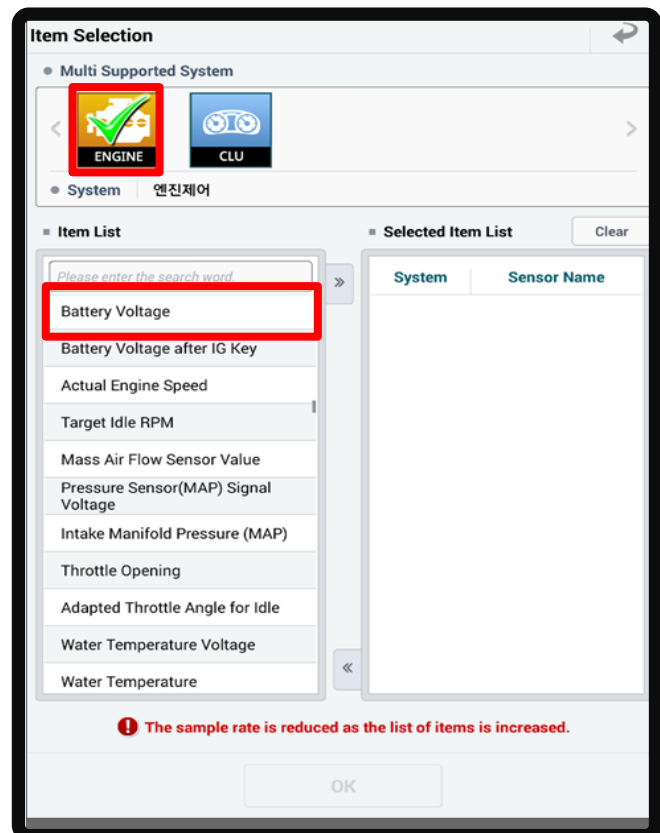
SUBJECT:

FUEL PUMP INSPECTION AND JET NOZZLE HOUSING REPLACEMENT (SC198)

- 5a. Select **'ENGINE'** and **'CLU'**.
- 5b. Select **'OK'**.



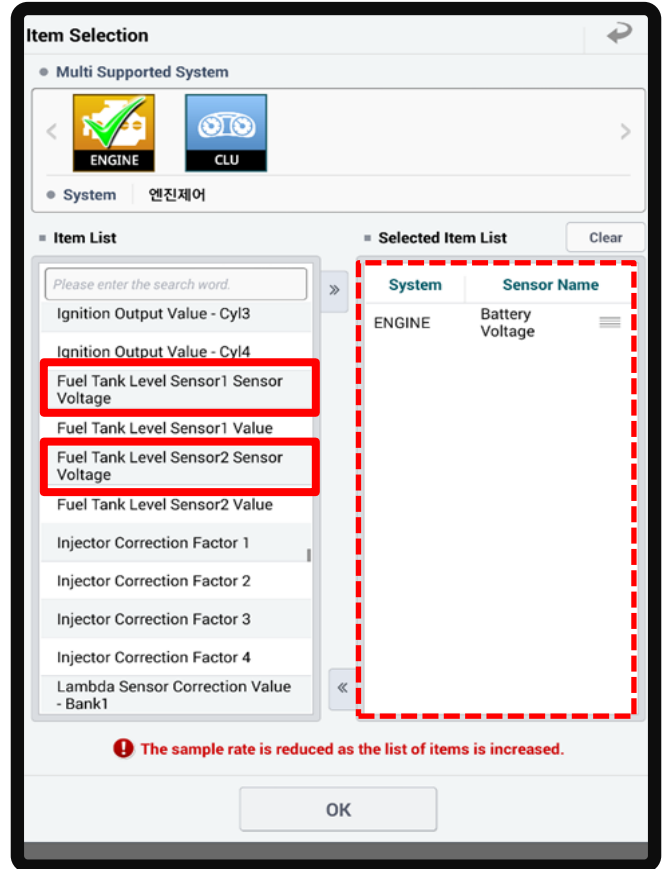
6. In the "Item List" menu, select "Battery Voltage."



SUBJECT: FUEL PUMP INSPECTION AND JET NOZZLE HOUSING REPLACEMENT (SC198)

7. Select, “Fuel Tank Level Sensor 1 Sensor Voltage” and “Fuel Tank Level Sensor 2 Sensor Voltage.”

Note: Selected components from the left “Item List” will show on the “Selected Item List” on the right side of the screen.



8. Select ‘CLU’ and select “FUEL INPUT.”



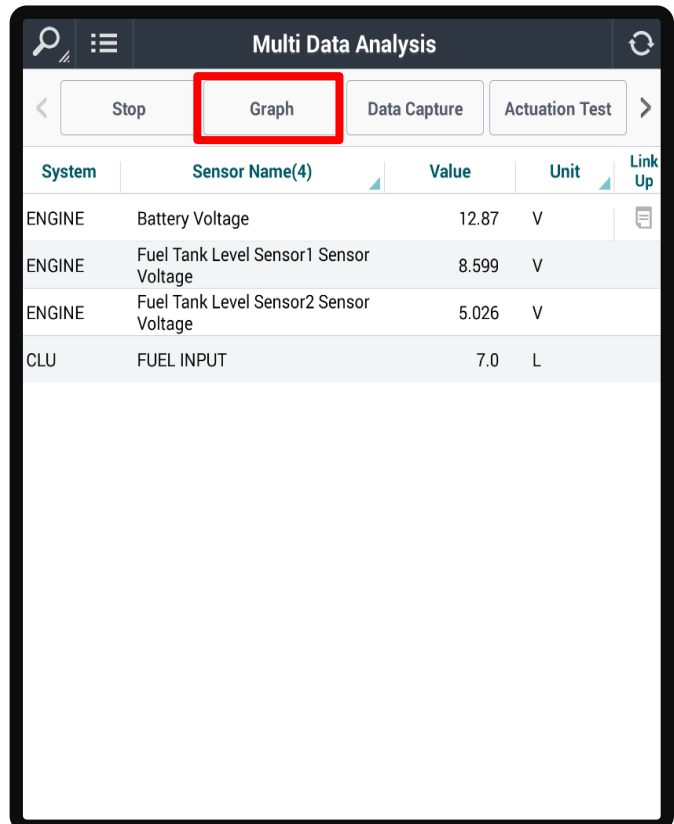
SUBJECT:

FUEL PUMP INSPECTION AND JET NOZZLE HOUSING REPLACEMENT (SC198)

9. Select 'OK'.

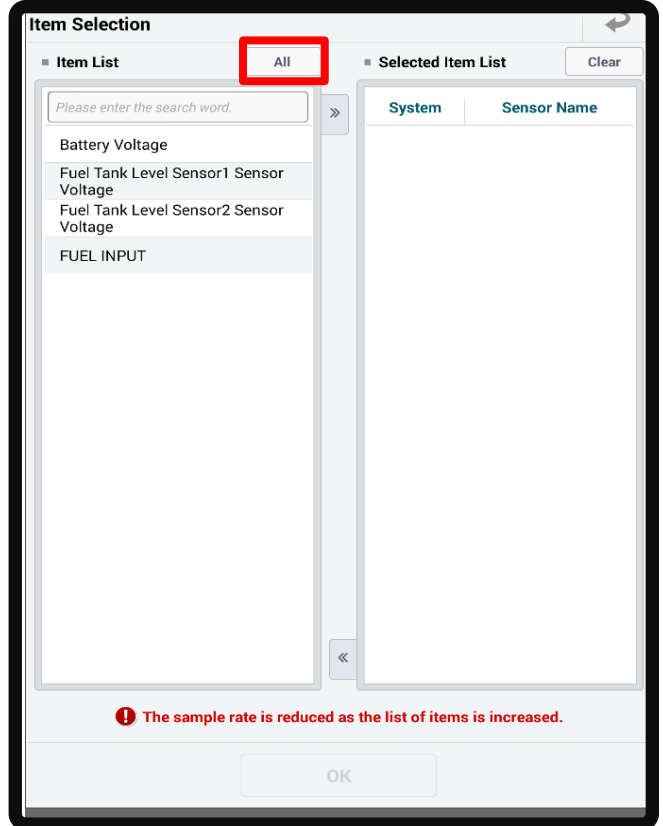


10. Select 'Graph'.

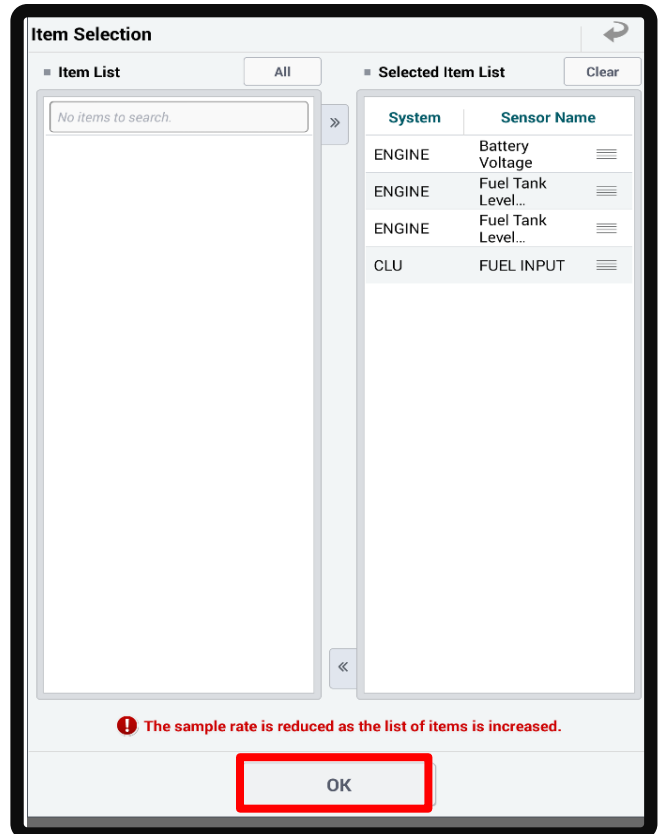


SUBJECT: FUEL PUMP INSPECTION AND JET NOZZLE HOUSING REPLACEMENT (SC198)

11. Select 'All'.



12. Select 'OK'.

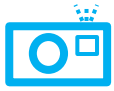


SUBJECT:

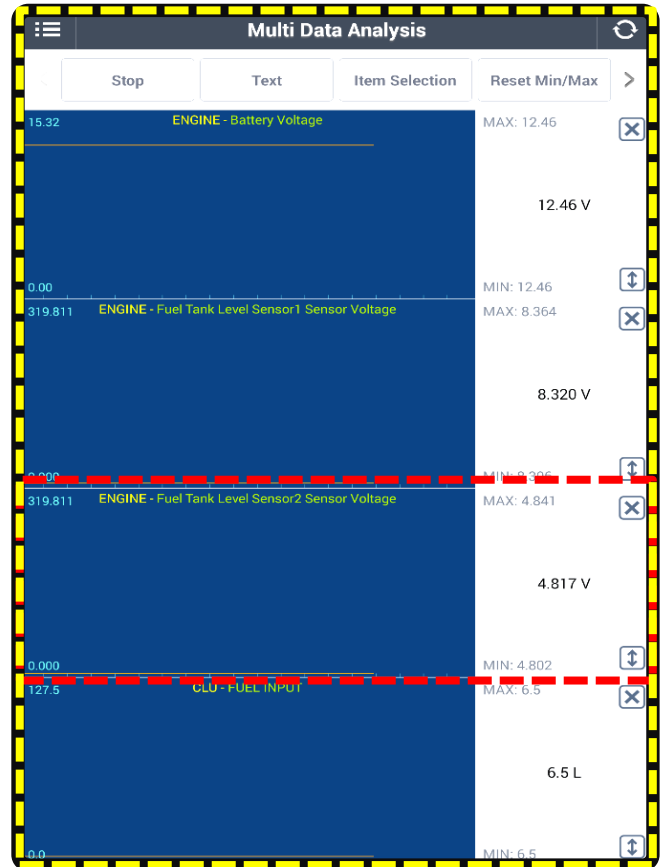
FUEL PUMP INSPECTION AND JET NOZZLE HOUSING REPLACEMENT (SC198)

13. On KDS, take a screen shot of the Multi Data Analysis screen which shows the "ENGINE – Fuel Tank Level Sensor 2 Voltage".

Note: The engine is not running, and the ignition is in the 'ON' position.



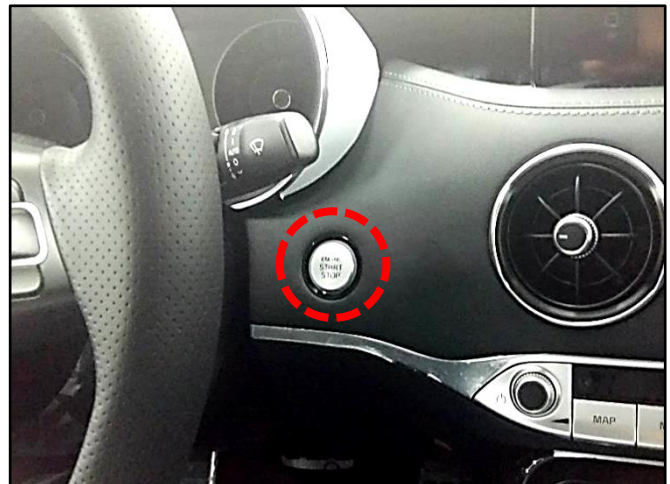
PICTURE 1: Take a screenshot of the ENGINE – Fuel Tank Level Sensor 2 Voltage screen.



14. Depress the brake pedal and press the ignition 'Start' button on the dash panel. Engine should now be "ON" running.

* NOTICE

Wait at least 10 seconds for the battery voltage to stabilize after the engine starts.



SUBJECT: FUEL PUMP INSPECTION AND JET NOZZLE HOUSING REPLACEMENT (SC198)

15. Select 'Reset Min/Max'.



16. Keep the engine running for at least 5 minutes and then check the “ENGINE - Fuel Tank Level Sensor2 Sensor Voltage” (Max-Min) reading.

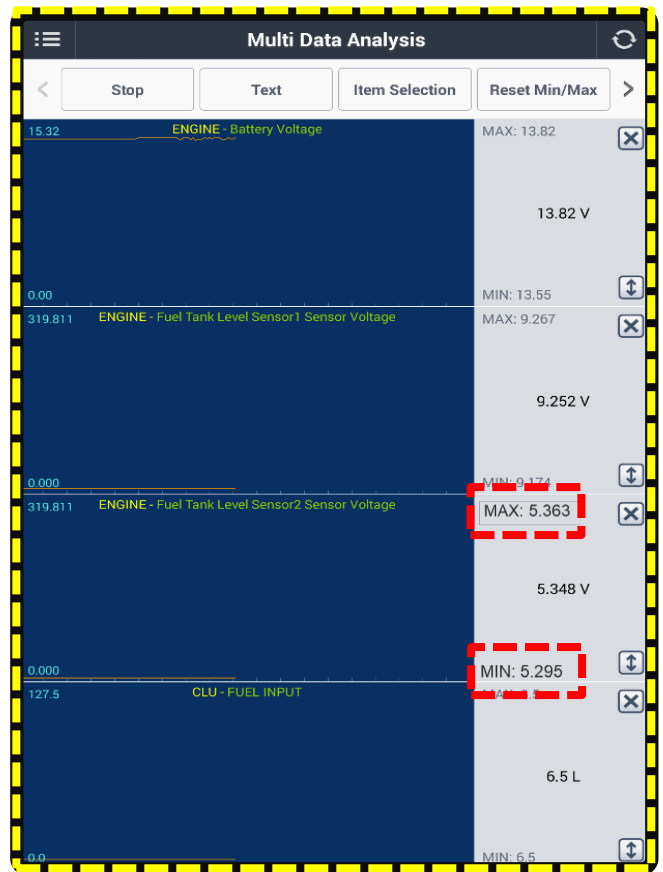
On KDS, take a screen shot of the Multi Data Analysis screen.

If the difference between Max and Min voltages is **more than 0.3V**, then **no further action is required**.

If the difference between Max and Min voltage reading is **zero or less than 0.3V**, proceed to repair procedure outlined on page 9.



PICTURE 2: Take a screenshot of the “ENGINE – Fuel Tank Level Sensor 2 Voltage” screen showing MAX and MIN readings.



SUBJECT:

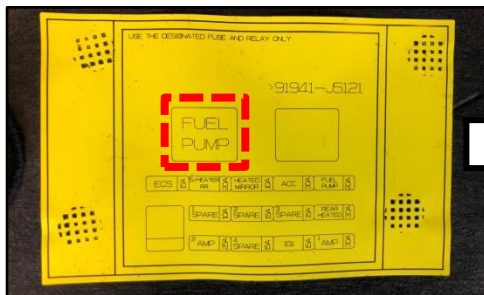
FUEL PUMP INSPECTION AND JET NOZZLE HOUSING REPLACEMENT (SC198)

Fuel Removal Procedure: (Only required if fuel level reading is over $\frac{3}{4}$ full)

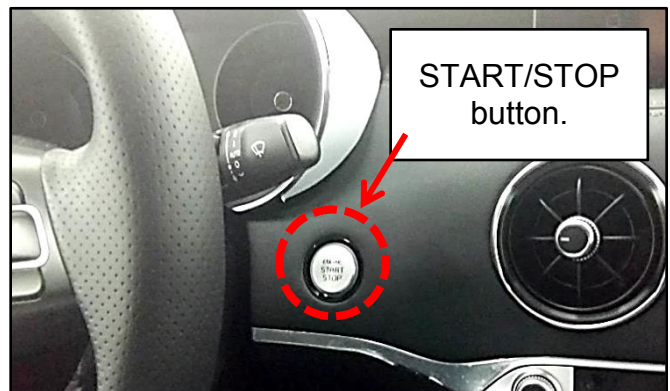
- 1a. Save customer radio presets.
- 1b. Ensure that the ignition is switched to "OFF" and the engine is not running by pressing the ignition 'STOP' button on the dash panel.



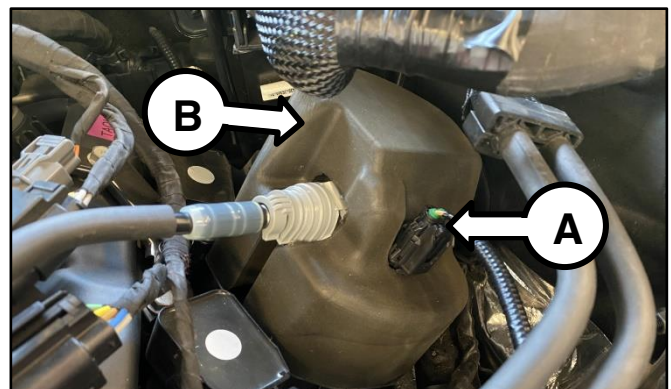
2. Remove the fuel pump relay located in the right side of the trunk area.



- 3a. Press the 'START' button to start the engine and let it stumble and stall. (Appx. 30 seconds to 1 minute if engine is hot).
- 3b. Press the 'STOP' button to switch the ignition to "OFF".
- 3c. Reinstall the fuel pump relay from previous step 2.



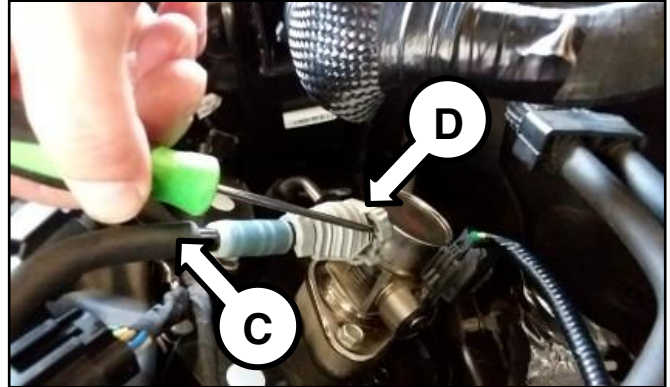
- 4a. Open the hood, remove engine cover and disconnect GDI pump electrical connector (A). Carefully remove GDI pump sound insulation (B).
- 4b. Reconnect the GDI connector (A) after removing the sound insulation (B).



SUBJECT:

FUEL PUMP INSPECTION AND JET NOZZLE HOUSING REPLACEMENT (SC198)

5. Using a pick tool, remove the low pressure fuel tube plastic clip (D) from the fuel tube (C) / GDI pump.



6. Using a 'U' shaped trim removal tool, remove the low side fuel tube (C) from the GDI pump by applying light pressure to the fuel tube towards the pump, then insert the trim tool and press the release towards the fuel tube. Slide the fuel tube off from the GDI pump inlet.



7. Connect the low fuel pressure tube (C) just disconnected from the GDI pump, to an external hose in order to gain additional length to drain fuel into a container (5 gal. recommended).

ⓘ IMPORTANT

Ensure the external hose is secure and tight to the low fuel pressure line end and container.

⚠ WARNING

Fuel vapors are flammable. Death or serious injury can result if they are ignited. Make sure there are no open flames or smoking in the area of the repair. Adequate ventilation is necessary to prevent a build-up of fumes which could ignite, causing fire or explosion.

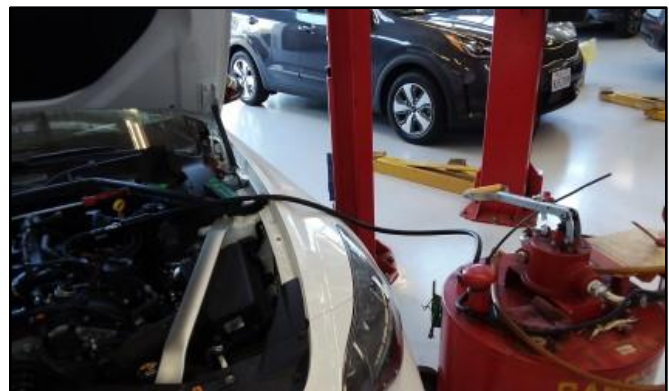
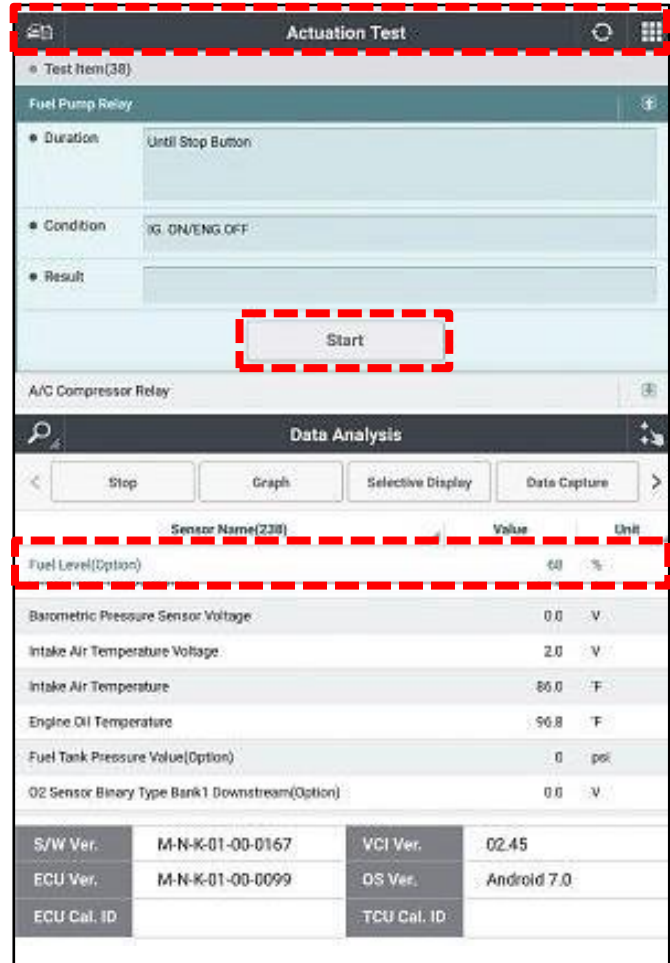


SUBJECT:

FUEL PUMP INSPECTION AND JET NOZZLE HOUSING REPLACEMENT (SC198)

- 8a. Connect KDS and select “actuation test” with IG ‘ON’. No engine start is necessary.
- 8b. Select ‘Start’ to activate the fuel pump relay and it will continuously drain fuel until “Stop” is pressed.
- 8c. Select “fuel pump relay” with “fuel level” selected in “data analysis” “fuel level” is selected to help monitor fuel level in the tank while draining fuel from the tank
- 8d. Once the “Fuel Level” “Value” shows 75%, the activation test can be stopped.

Proceed to the perform the ‘**Inspection Procedure**’ on page 2 or ‘**Replacement Procedure**’ on page 11.



9. Reinstall all removed parts in the reverse order of removal.

SUBJECT: FUEL PUMP INSPECTION AND JET NOZZLE HOUSING REPLACEMENT (SC198)

Replacement Procedure:

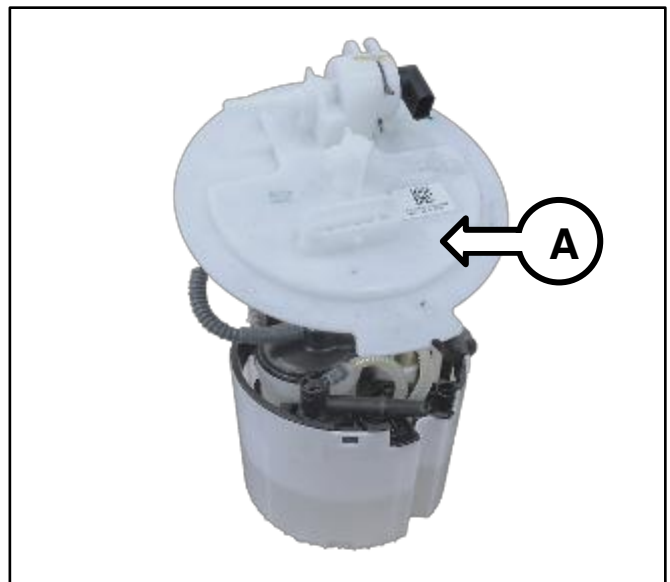
- 1a. Save customer radio presets.
- 1b. Ensure that the engine is not running by pressing the ignition 'STOP' button on the dash panel.



- 2a. Remove the low pressure fuel pump assembly (A) by referring to the "Engine Control/Fuel System → Fuel Delivery System → Low Pressure Fuel Pump → Repair procedures" chapter in the applicable Shop Manual on KGIS.

CAUTION

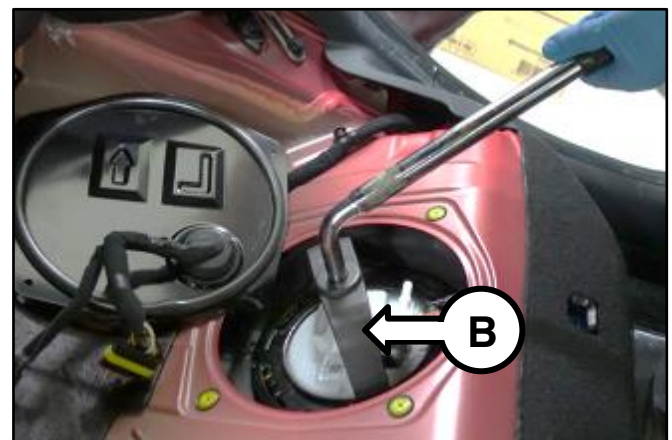
Whenever the high pressure fuel fuse, fuel pipe or delivery pipe are removed immediately after shutting off the engine, an injury may be caused the release of high pressurized fuel.



- 2b.

*** NOTICE**

SST Fuel Pump Locking Ring Wrench P/N 09310 B8100 is required.



WARNING

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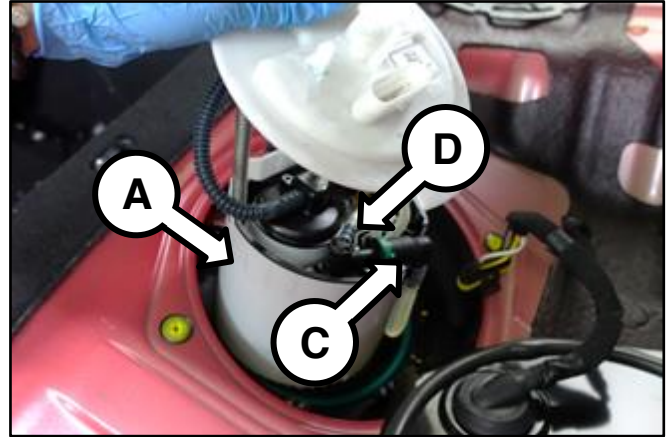
SUBJECT:

FUEL PUMP INSPECTION AND JET NOZZLE HOUSING REPLACEMENT (SC198)

- 2c. Carefully disconnect the sub - fuel hose (C) from the jet nozzle housing (D) to remove the fuel pump assembly (A).

ⓘ IMPORTANT

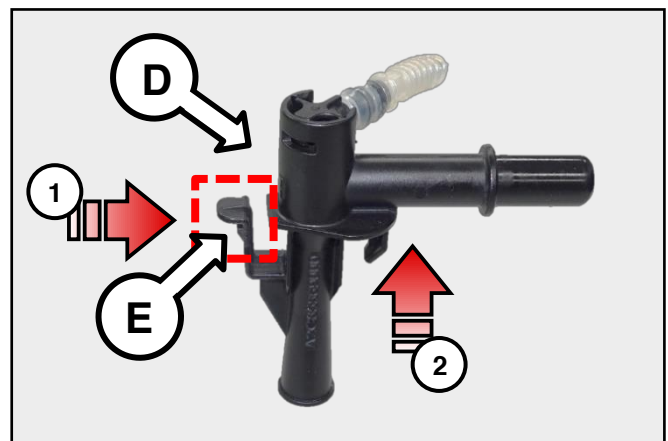
When removing the fuel pump assembly, be careful not to deform the sender gauge unit.



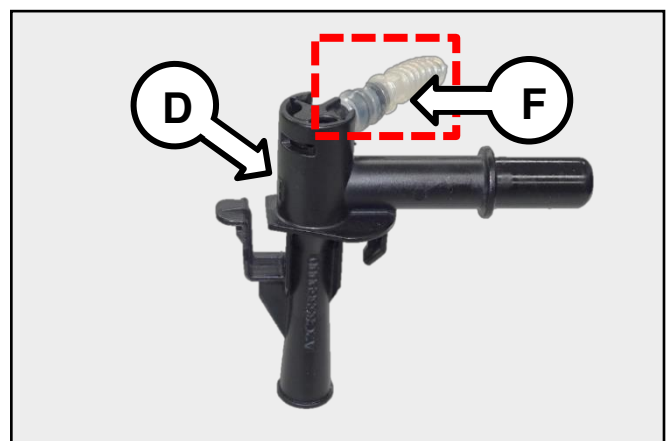
3. Place the fuel pump on a clean table/surface.

To remove the jet nozzle housing from the fuel pump assembly:

- 1) Push the tab (E) in the direction shown to release jet nozzle housing (D).
- 2) Pull up on the jet nozzle housing (D) to detach it from the fuel pump.



4. Insert and rotate a small flathead screwdriver as shown to detach the jet nozzle (F) from the housing (D).



* NOTICE

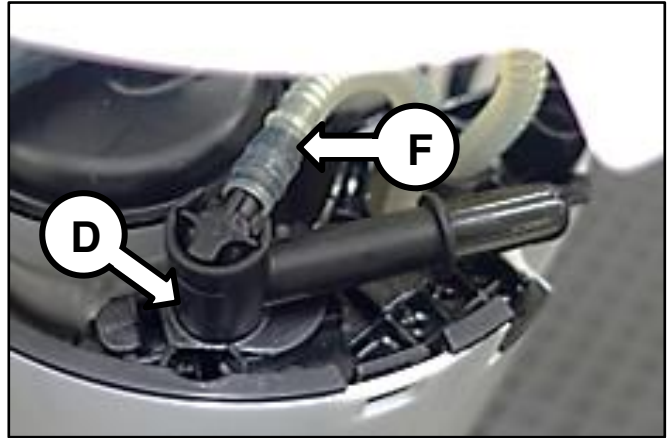
Flexible hose connected to the nozzle is not separable. **DO NOT attempt to disconnect.**



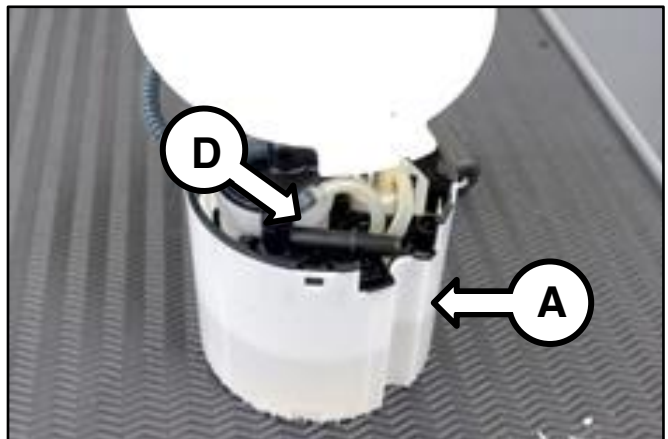
SUBJECT: FUEL PUMP INSPECTION AND JET NOZZLE HOUSING REPLACEMENT (SC198)

- 5a. Insert the jet nozzle (F) to the new jet nozzle housing (D) in the same reverse order of removal.

ⓘ IMPORTANT
Confirm that the new jet nozzle is fully inserted and secured to the housing.

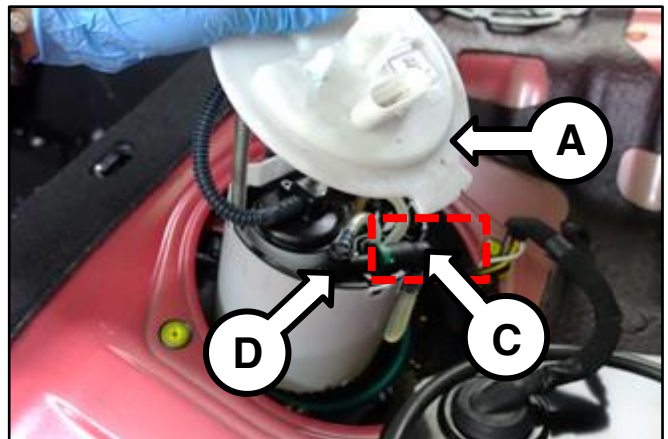


- 5b. Attach the jet nozzle housing (D) back into the fuel pump assembly (A)



- 6. Re-install the fuel pump assembly (A) in the same reverse order of removal.

ⓘ IMPORTANT
Ensure that the sub - fuel hose (C) is properly secured onto the jet nozzle housing (D) (from step 2c) prior to installing the fuel pump assembly.



- 7. Confirm normal vehicle operation.
- 8. Restore customer radio presets.

SUBJECT:

FUEL PUMP INSPECTION AND JET NOZZLE HOUSING REPLACEMENT (SC198)

AFFECTED VEHICLE RANGE:

Model	Production Date Range
Stinger (CK)	June 3, 2020 to July 22, 2020

REQUIRED TOOL:

Tool Name	Part Number	Figure	Comments
Fuel Pump Locking Ring Wrench	09310 B8100		Drawer #3

REQUIRED PART:

Part Name	Part Number	Figure	Qty.
Jet Nozzle Housing Assembly	31122 J5000QQK		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.
R	35320 2CTB1	0	(SC198) Fuel Pump Inspection	201097R0	0.3 M/H	N/A	0
			(SC198) Fuel Pump Inspection and Jet Nozzle Housing Replacement	201097R1	0.8 M/H	31122 J5000QQK	1

Note: Refer to Warranty Bulletin 2020-22 for claim submission procedures.

* NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference **SC198** when accessing the WebDCS system.

