

Knocking Noise From Fuel Tank Area

Service Category Engine/Hybrid System

Section Fuel System

Market USA

Lexus Supports
ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2016 - 2022	RX350	

REVISION NOTICE

September 14, 2021 Rev2:

- Applicability has been updated to include 2022 model year RX 350 and RX 350L vehicles.

October 27, 2020 Rev1:

- Applicability has been updated to include 2020 – 2021 model year RX 350 and RX 350L vehicles. Any previous printed versions of this bulletin should be discarded.

Introduction

Some 2016 – 2022 model year RX 350 and 2018 – 2022 model year RX 350L vehicles may exhibit a knocking noise from the fuel tank area at idle, vehicle stationary, with a full tank of gasoline. Follow the Repair Procedure in this bulletin to address this condition.

Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
EG1813	Install Valve Assembly and Charcoal Canister Plate R & R Fuel Tank Protector and Exhaust Gaskets	1.0	77404-0E050	91	52

APPLICABLE WARRANTY

- This repair is covered under the Lexus Basic Warranty. This warranty is in effect for 48 months or 50,000 miles, whichever occurs first, from the vehicle's in-service date.
- Warranty application is limited to occurrence of the specified condition described in this bulletin.

Knocking Noise From Fuel Tank Area

Parts Information

PART NUMBER		PART NAME	QTY
PREVIOUS	NEW		
77606-0E040 77606-0E050	77606-48160	Protector Sub-assy, Fuel Tank	1
90917-06072 90917-06090		Gasket, Exhaust Pipe	1 – 2*
77720-48060		Valve Assy, Fuel Outlet	1
77743-48020		Plate, Charcoal Canister, No. 1	1

*Qty 2 for RX 350 (two row) vehicles and Qty 1 for RX 350L (three row) vehicles.

Required Tools & Equipment

REQUIRED TOOLS & MATERIAL	PART NUMBER	QTY
Nitto Tape*	360UL	1
Scissors	–	1

NOTE

*Nitto Tape is located in the unusual interior noise (UIN) kit (PN 08231-00801), which is stocked by most dealers. Check the UIN kit for Nitto Tape BEFORE ordering.

Repair Procedure

1. Confirm the condition exists.

Does the vehicle exhibit a knocking noise from the fuel tank area at idle, vehicle stationary, with a full tank of gasoline?

- **YES** — Continue to step 2.
- **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

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Repair Procedure (continued)

2. Confirm if the vehicle has the NEW pulsation damper valve assembly installed.

NOTE

The NEW part can be identified by the addition of a bracket and valve assembly attached to the charcoal canister.

Does the vehicle have the NEW pulsation damper valve assembly installed?

- **YES** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
- **NO** — Continue to step 3.

Figure 1. Without Pulsation Damper Valve Assembly Installed

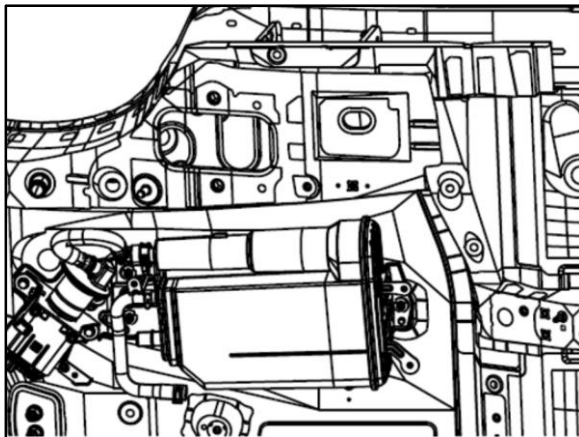
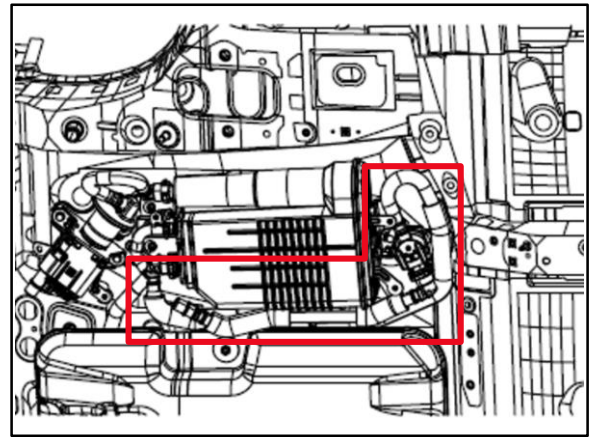


Figure 2. With Pulsation Damper Valve Assembly Installed



3. Remove the tail exhaust pipe assembly and the charcoal canister protector.
Refer to TIS, applicable model and model year Repair Manual:
 - [2016](#) / [2017](#) / [2018](#) / [2019](#) / [2020](#) / [2021](#) / [2022](#) RX 350:
Engine/Hybrid System – Emission Control – “2GR-FKS Emission Control: Canister: Removal”
4. Remove the front center floor cover and the No. 1 fuel tank protector sub-assembly.
Refer to TIS, applicable model and model year Repair Manual:
 - [2016](#) / [2017](#) / [2018](#) / [2019](#) / [2020](#) / [2021](#) / [2022](#) RX 350:
Engine/Hybrid System – Fuel System – “2GR-FKS Fuel: Fuel Tank: Removal”

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Repair Procedure (continued)

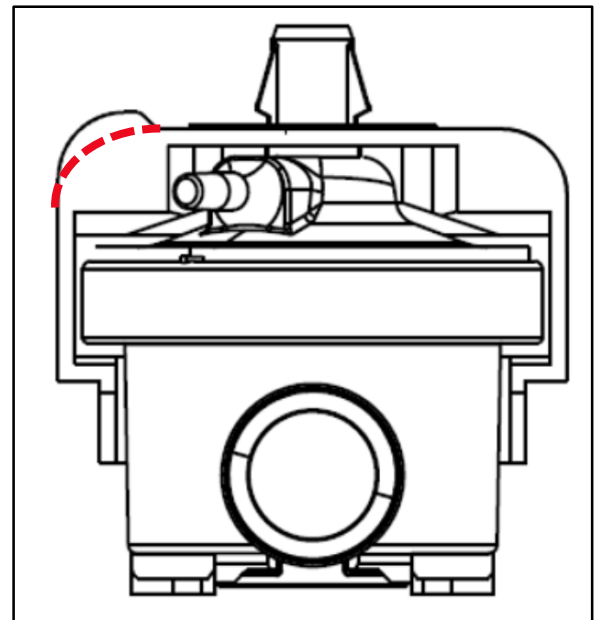
5. Disconnect the fuel tank vent hose sub-assembly.

Refer to TIS, applicable model and model year Repair Manual:

- [2016](#) / [2017](#) / [2018](#) / [2019](#) / [2020](#) / [2021](#) / [2022](#) RX 350:
*Engine/Hybrid System – Emission Control – “2GR-FKS Emission Control:
 Canister: Removal”*

6. To provide adequate clearance to the NEW bracket, trim the NEW pulsation damper valve as shown with scissors or another cutting tool.

Figure 3.

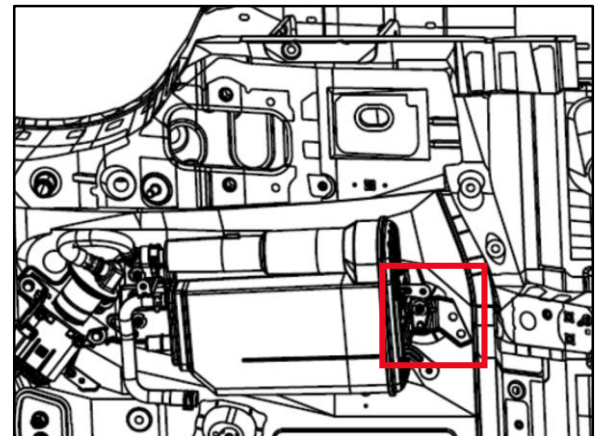


7. Ensure the valve and bracket do NOT interfere with one another BEFORE proceeding to the next step.

8. Install the NEW bracket to the charcoal canister.
 - A. Remove the nut from the front of the charcoal canister.
 - B. Install the bracket on the stud.
 - C. Tighten the nut and valve assembly plate into place.

Torque: 5.5 N*m (56 kgf*cm, 49 in*lbf)

Figure 4.

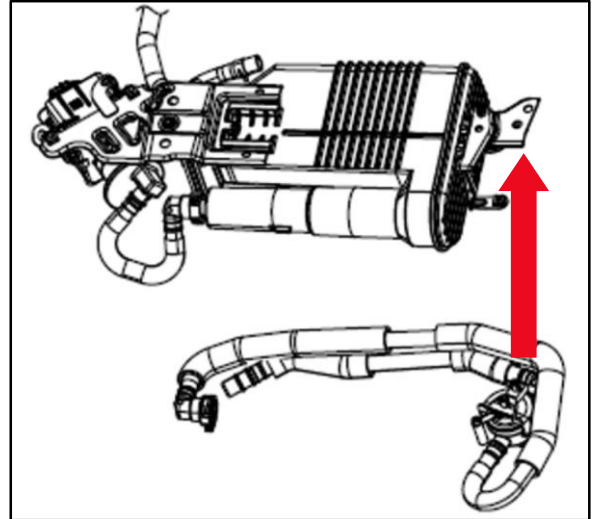


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Repair Procedure (continued)

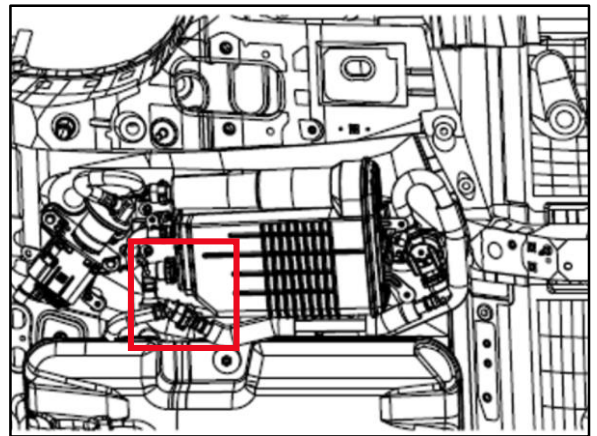
9. Install the NEW pulsation damper valve assembly onto the NEW bracket.
Push both retaining clips of valve assembly through the two holes on the bracket.

Figure 5.



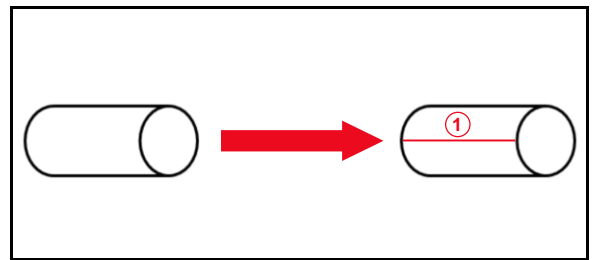
10. Connect the NEW pulsation damper valve assembly between the fuel tank vent hose assembly and the charcoal canister.

Figure 6.



11. Cut the two reflect sleeves as shown.

Figure 7.



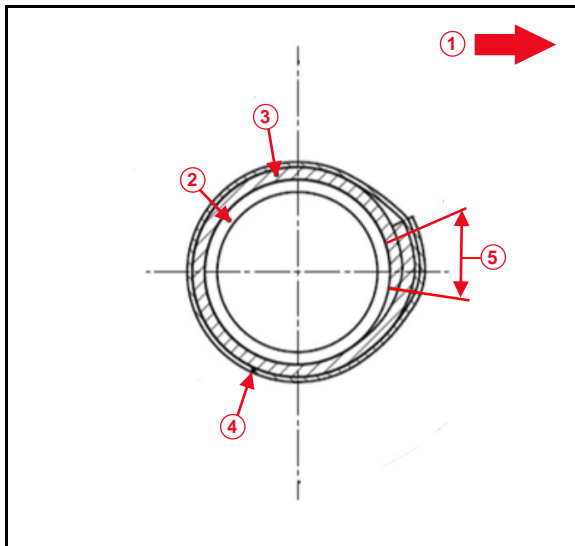
1	Cut Location
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Repair Procedure (continued)

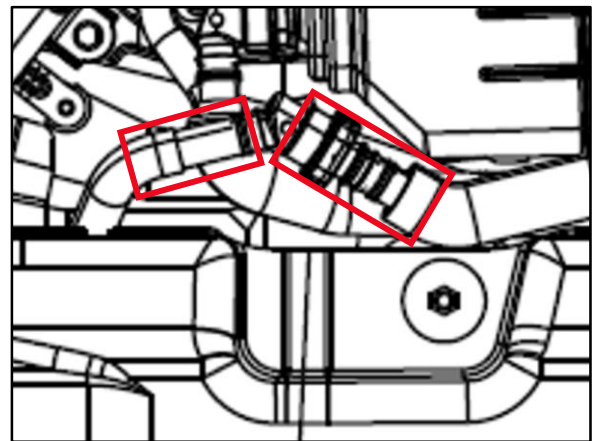
12. Wrap a reflect sleeve around each of the vent tube connections, overlapping the sleeves at the top. Tape the sleeves into place as shown.

Figure 8.



1	Up
2	Vent Tube
3	Reflect Sleeve
4	Nitto Tape
5	Reflect Sleeve and Nitto Tape Overlap Area

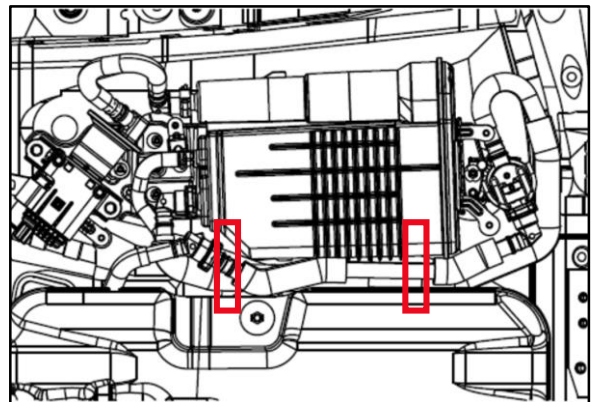
Figure 9.



13. Using the zip ties supplied, tie the NEW pulsation damper valve assembly to the purge line as shown by doubling the zip ties together for each location.

NOTE
Double or connect the zip ties to create enough length to secure the assembly.

Figure 10. Zip-Tie Locations



Knocking Noise From Fuel Tank Area

Repair Procedure (continued)

14. Trim the excess zip-tie tail between 3 mm – 5 mm.
15. Install the No. 1 fuel tank protector sub-assembly and the front center floor cover.
Refer to TIS, applicable model and model year Repair Manual:
 - [2016](#) / [2017](#) / [2018](#) / [2019](#) / [2020](#) / [2021](#) / [2022](#) RX 350:
Engine/Hybrid System – Fuel System – “2GR-FKS Fuel: Fuel Tank: Installation”
16. Install the charcoal canister protector and the tail exhaust pipe assembly.
Refer to TIS, applicable model and model year Repair Manual:
 - [2016](#) / [2017](#) / [2018](#) / [2019](#) / [2020](#) / [2021](#) / [2022](#) RX 350:
Engine/Hybrid System – Emission Control – “2GR-FKS Emission Control: Canister: Installation”
17. Make sure the vehicle has a full tank of gasoline and start the engine.
18. At idle, vehicle stationary, confirm the knocking noise is no longer present.