


# 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 - 2021	RX350	

### REVISION NOTICE

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 – 2021 model year RX 350 and 2018 – 2021 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.

## Knocking Noise From Fuel Tank Area

### Repair Procedure (continued)

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

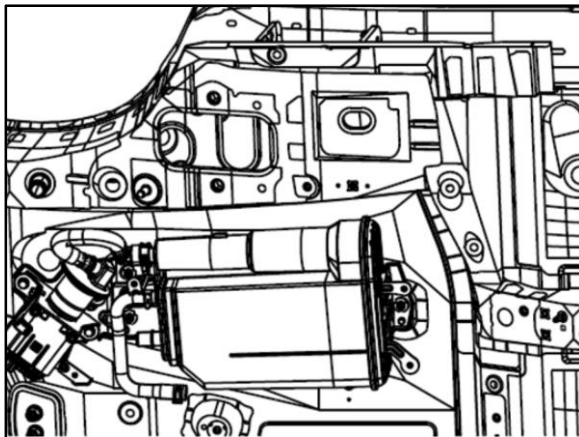
**NOTE**

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

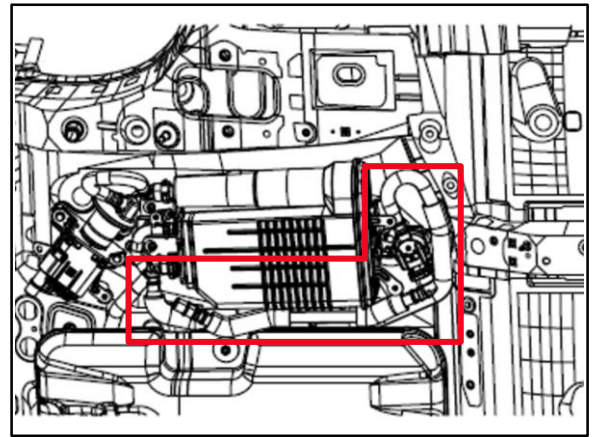
Does the vehicle have the NEW pulsation damper valve assembly installed?

- **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](#) 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](#) RX 350:  
*Engine/Hybrid System – Fuel System – “2GR-FKS Fuel: Fuel Tank: Removal”*

## Knocking Noise From Fuel Tank Area

---

### Repair Procedure (continued)

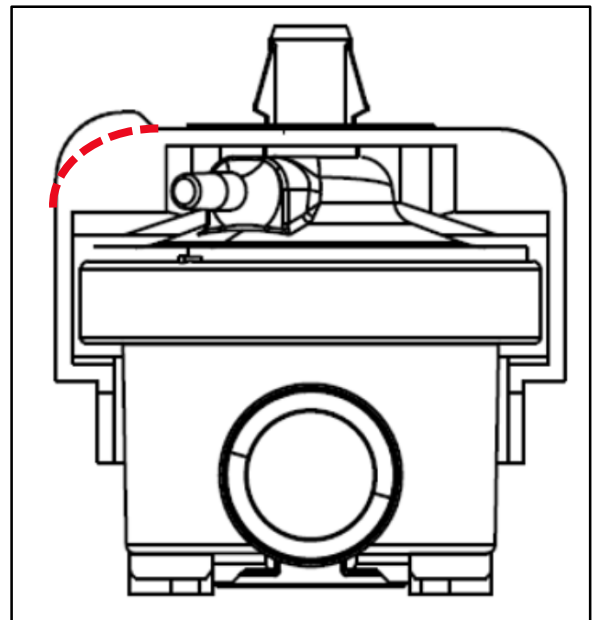
5. Disconnect the fuel tank vent hose sub-assembly.

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

- [2016](#) / [2017](#) / [2018](#) / [2019](#) / [2020](#) / [2021](#) 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.**

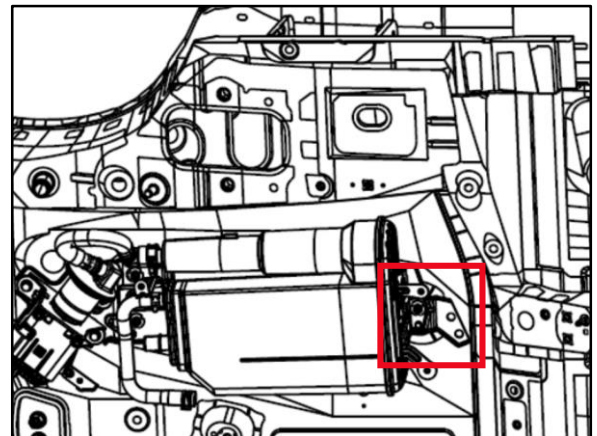


7. Ensure the valve and bracket do NOT interfere with one another BEFORE proceeding to the next step.

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.**

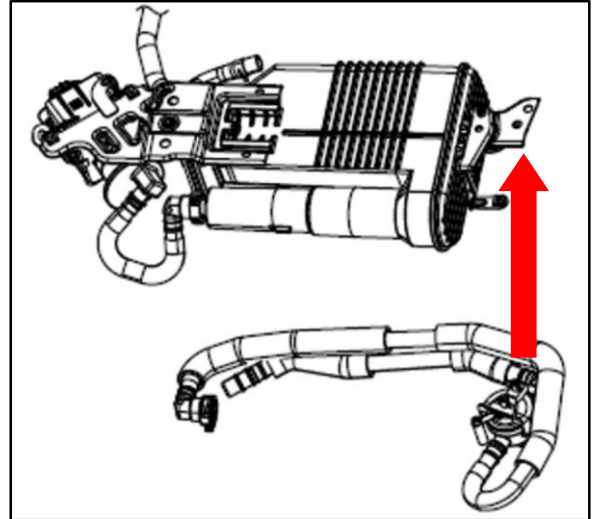


## Knocking Noise From Fuel Tank Area

### Repair Procedure (continued)

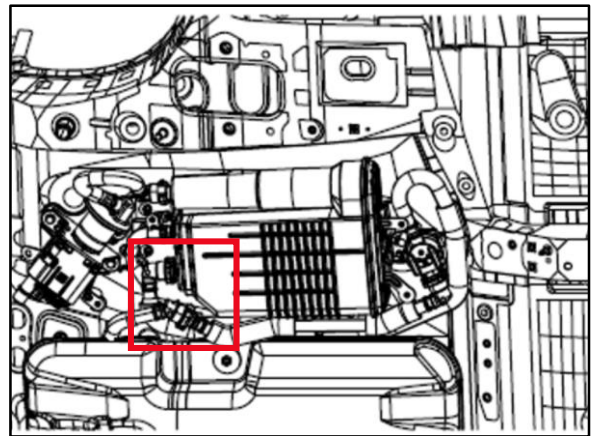
9. Install the NEW pulsation damper valve assembly onto the NEW bracket.  
Push both retaining clips of valve assembly through the two holes on the bracket.

**Figure 5.**



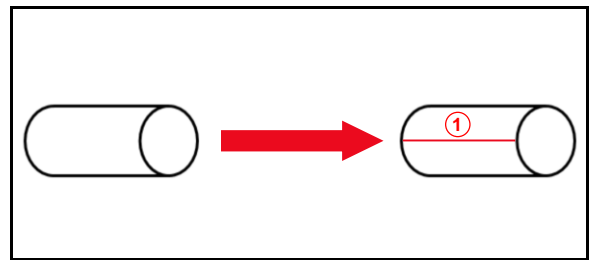
10. Connect the NEW pulsation damper valve assembly between the fuel tank vent hose assembly and the charcoal canister.

**Figure 6.**



11. Cut the two reflect sleeves as shown.

**Figure 7.**



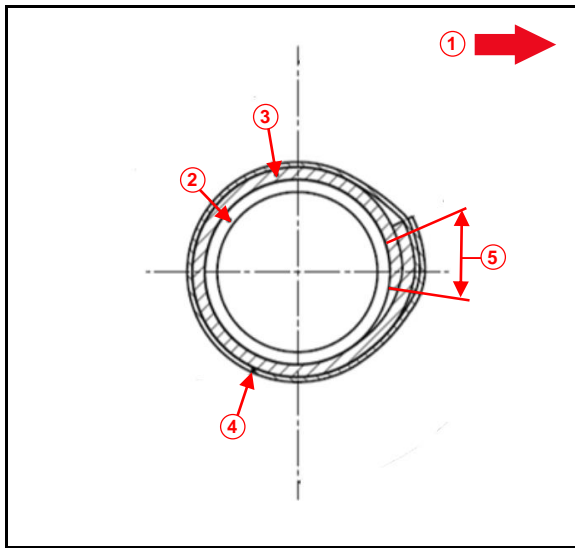
<b>1</b>	<b>Cut Location</b>
----------	---------------------

## Knocking Noise From Fuel Tank Area

### Repair Procedure (continued)

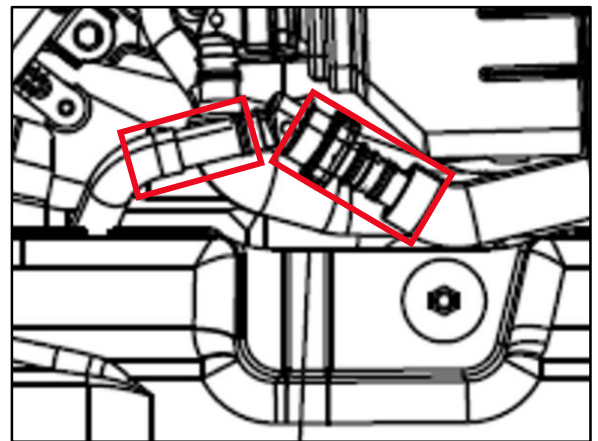
12. Wrap a reflect sleeve around each of the vent tube connections, overlapping the sleeves at the top. Tape the sleeves into place as shown.

**Figure 8.**



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

**Figure 9.**

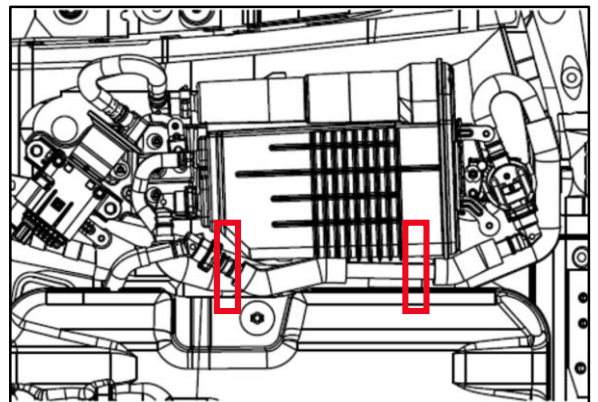


13. Using the zip ties supplied, tie the NEW pulsation damper valve assembly to the purge line as shown by doubling the zip ties together for each location.

**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](#) 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](#) 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.