

MIL ON With Misfire DTC(s) P0301, P0302, P0303, P0304, P0305, and/or P0306

Service Category Vehicle Interior

Section Meter/Gauge/Display

Market USA

Lexus Supports
ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2016 - 2019	RX450H	

Introduction

Some 2016 – 2019 model year RX450h and 2018 – 2019 model year RX450hL vehicles may exhibit a MIL ON condition with one or more of the following Diagnostic Trouble Codes (DTCs):

- P0301 – Cylinder 1 Misfire Detected
- P0302 – Cylinder 2 Misfire Detected
- P0303 – Cylinder 3 Misfire Detected
- P0304 – Cylinder 4 Misfire Detected
- P0305 – Cylinder 5 Misfire Detected
- P0306 – Cylinder 6 Misfire Detected

Follow the Repair Procedure in this bulletin to address this condition.

Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
EG1915	Engine ECM Reprogramming and R & R Ignition Coil	2.8	89661-####	8A	74

APPLICABLE WARRANTY

- This repair is covered under the Lexus Federal Emission Warranty. This warranty is in effect for 96 months or 80,000 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.

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Parts Information

PART NUMBER		PART NAME	QTY
PREVIOUS	NEW		
90919-02280 90919-A2013		Coil Assy, Ignition	1
89661-#####		Computer, Engine Control	–
00451-00001-LBL		Authorized Modification Labels	1

Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
Techstream ADVi*	ADE	TSADVUNIT	1
Techstream 2.0		TS2UNIT	
Techstream Lite		TSLITEPDLR01	
Techstream Lite (Green Cable)		TSLP2DLR01	

*Essential SST.

NOTE

- Only ONE of the Techstream units listed above is required.
- Software version 14.20.019 or later is required.
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.
- Use Techstream or an approved J2534 interface to perform flash reprogramming updates. Visit techinfo.toyota.com for more information regarding J2534 reprogramming.

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
Battery Diagnostic Tool*	DCA-8000P T	1

*Essential SST.

NOTE

Additional SSTs may be ordered by calling 1-800-933-8335.

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Calibration Information

YEAR	MODEL	ENGINE	CALIBRATION ID	
			PREVIOUS	NEW
2016	RX450h	2GR-FXS	348Q4000 348Q4100 348Q4200 348Q4300	348Q4400
2017			348N0000 348N0100	348N0200
2018			348V6000 348V6100	348V6200
	RX450hL		348T1000 348T1100	348T1200
2019	RX450h		348Z3000	348Z3100
	RX450hL		348Z4000	348Z4100

Repair Procedure

1. Confirm the condition exists.

Does the vehicle exhibit a MIL ON condition with ANY of the DTCs in the introduction present?

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

2. Diagnose the misfire DTC(s).

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

- 2016 – 2017 RX450h:
Engine / Hybrid System – 2GR-FXS (Engine Control):
[“P0300 – P0306; Random / Multiple Cylinder Misfire Detected”](#)
- 2018 RX450h and RX450hL:
Engine / Hybrid System – 2GR-FXS (Engine Control):
[“P0300 – P0306; Random / Multiple Cylinder Misfire Detected”](#)
- 2019 RX450h and RX450hL:
Engine / Hybrid System – 2GR-FXS (Engine Control):
[“P0300 – P0306; Random / Multiple Cylinder Misfire Detected”](#)

Does the diagnosis indicate a malfunctioning ignition coil?

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

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Repair Procedure (continued)

3. Use Techstream to confirm if the ECM (PCM) calibration has been updated and check for the Authorized Modifications Label affixed to the vehicle in the location shown below.

Is the calibration ID listed in Techstream and on the label the latest ECM (PCM) calibration?

- **YES** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
- **NO** — Continue to step 4.

Figure 1. Location of Authorized Modifications Label on 2016 – 2019 RX450h and 2018 – 2019 RX450hL



1	Replacement ECM (PCM) Part Number (e.g., 90919-02280)
2	New Calibration ID (e.g., 348Q4400)
3	Dealer Code

4	Date Completed
5	This SB Number

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Repair Procedure (continued)

4. Flash reprogram the ECM (PCM).

NOTE

- The battery diagnostic tool **MUST** be used in Power Supply Mode to maintain battery voltage at 13.5V while flash reprogramming the vehicle.
- For details on how to use the battery diagnostic tool, refer to the [DCA-8000 Instruction Manual](#) located at *TIS – Diagnostics – Tools & Equipment – Battery Diagnostics*.

5. Follow the procedures outlined in Service Bulletin [L-SB-0001-18](#), *Techstream ECU Flash Reprogramming Procedure*, and flash the ECM (PCM) with the NEW calibration file update.
6. Prepare and install the Authorized Modifications Label.
 - A. Using a permanent marker, enter the following information on the label:
 - ECM (PCM) part number [*Refer to the **Parts Information** section for the **NEW PART NUMBER***]
 - Calibration ID(s) [*Refer to the **Calibration Information** section for the **NEW CALIBRATION ID***]
 - Dealer Code
 - Repair Date
 - Change Authority [***This bulletin number***]
 - B. Install the Authorized Modifications Label onto the vehicle at the location shown in Figure 1. The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.
7. Replace the ignition coil.
 - A. Remove the subject ignition coil.
Refer to TIS, applicable model and model year Repair Manual.
 - 2016 RX450h: *Engine / Hybrid System – 2GR-FXS (Engine Control)*:
[“Ignition Coil and Spark Plug: Removal”](#)
 - 2017 – 2019 RX450h: *Engine / Hybrid System – 2GR-FXS (Engine Control)*:
[“Ignition Coil and Spark Plug: Removal”](#)
 - 2018 – 2019 RX450hL: *Engine / Hybrid System – 2GR-FXS (Engine Control)*:
[“Ignition Coil and Spark Plug: Removal”](#)
 - B. Install the NEW ignition coil.
Refer to TIS, applicable model and model year Repair Manual.
 - 2016 – 2019 RX450h and 2018 – 2019 RX450hL: *Engine / Hybrid System – 2GR-FXS (Engine Control)*: [“Ignition Coil and Spark Plug: Installation”](#)
8. Test-drive the vehicle to confirm proper operation.