


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

**Service Category** Engine/Hybrid System

**Section** Engine Control

**Market** USA

Lexus Supports  
ASE Certification 

## Applicability

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

### REVISION NOTICE

February 15, 2023 Rev1:

- The Service Category indicator has been changed to Engine/Hybrid Control.
- The Section indicator has been changed to Engine Control.

Any previous printed versions of this bulletin should be discarded.

## Introduction

Some 2016 – 2019 model year RX 450h and 2018 – 2019 model year RX 450hL 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.

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

### Warranty Information

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

\*Warranty claim MUST be submitted with the correct 10-digit OFF. Choose the correct OFF for the vehicle being repaired by searching for the parts in the Electronic Parts Catalog using the VIN filter.

#### 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.

### Parts Information

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

#### NOTE

- The ECM (PCM) should NOT be replaced as part of the Repair Procedure.
- Authorized Modifications Labels may be ordered in packages of 25 from the Materials Distribution Center (MDC) ([portal.toyotamdc.com](http://portal.toyotamdc.com)) under item No. 0045100001LBL.

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### 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 17.30.011 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](http://techinfo.toyota.com) for more information regarding J2534 reprogramming.

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
Battery Diagnostic Tool*	<a href="#">DCA-8000P T</a>	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	RX 450h	2GR-FXS	348Q4000	<a href="#">348Q4400</a>
2017			348Q4100	
			348Q4200	
348Q4300				
2018	RX4 50hL		348N0000	<a href="#">348N0200</a>
			348N0100	
2019	RX 450h		348V6000	<a href="#">348V6200</a>
			348V6100	
	RX 450hL	348T1000	<a href="#">348T1200</a>	
		348T1100		
		348Z3000	<a href="#">348Z3100</a>	
		348Z4000	<a href="#">348Z4100</a>	

### 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 RX 450h:  
*Engine/Hybrid System – Engine Control:*  
[“2GR-FXS \(Engine Control\): SFI System: P0300-P0306; Random / Multiple Cylinder Misfire Detected”](#)
- 2018 RX 450h and RX 450hL:  
*Engine/Hybrid System – Engine Control:*  
[“2GR-FXS \(Engine Control\): SFI System: P0300 – P0306; Random / Multiple Cylinder Misfire Detected”](#)
- 2019 RX 450h and RX 450hL:  
*Engine/Hybrid System – Engine Control:*  
[“2GR-FXS \(Engine Control\): SFI System: P0300 – P0306; Random / Multiple Cylinder Misfire Detected”](#)

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### Repair Procedure (continued)

3. 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.
4. 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 5.

**Figure 1. Location of Authorized Modifications Label on 2016 – 2019 RX 450h and 2018 – 2019 RX 450hL**

**TOYOTA MOTOR CORPORATION**

**AUTHORIZED MODIFICATIONS**

THE FOLLOWING MODIFICATIONS HAVE BEEN MADE:

①	
②	

THESE MODIFICATIONS HAVE BEEN APPROVED  
AS APPROPRIATE BY EPA AND CARB

DEALER CODE:	DATE:
CHANGE AUTHORITY:	

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

<b>4</b>	Date Completed
<b>5</b>	This SB Number

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### Repair Procedure (continued)

5. 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*.

6. 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.
7. 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.

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### Repair Procedure (continued)

8. Replace the ignition coil.

A. Remove the subject ignition coil.

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

- 2016 RX 450h:

*Engine/Hybrid System – Engine Control:*

[“2GR-FXS \(Engine Control\): Ignition Coil and Spark Plug: Removal”](#)

- 2017 – 2019 RX 450h:

*Engine/Hybrid System – Engine Control:*

[“2GR-FXS \(Engine Control\): Ignition Coil and Spark Plug: Removal”](#)

- 2018 – 2019 RX 450hL:

*Engine/Hybrid System – Engine Control:*

[“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 RX 450h and 2018 – 2019 RX 450hL:

*Engine/Hybrid System – Engine Control:*

[“2GR-FXS \(Engine Control\): Ignition Coil and Spark Plug: Installation”](#)

9. Test-drive the vehicle to confirm proper operation.