

MIL "ON" P137800 (8AR-FTS)

Service Category Engine/Hybrid System

Section Engine Control

Market USA

Lexus Supports
ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2016 - 2017	GS200T, IS200T, RC200T	
2015 - 2017	NX200T	

Introduction

Some 2015 – 2017 model year NX 200t and 2016 – 2017 model year GS 200t, IS 200t, and RC 200t vehicles equipped with an 8AR-FTS engine may exhibit a MIL "ON" condition with Diagnostic Trouble Code (DTC) P137800 (Pre-ignition Detected) followed by a "Reduced Engine Power Visit Your Dealer" message on the Multi-Informational Display (MID) unit. The Engine Control Module/ECM (SAE Term: Powertrain Control Module/PCM) logic has been modified to reduce the possibility of this condition occurring. Follow the Repair Procedure in this bulletin to address this condition.

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Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
EG1657	Reprogram ECM (PCM)	0.4	89661-53S60	8A	99
			89661-53S61		
			89661-53S62		
			89661-24A70		
			89661-24A71		
			89661-24A72		
			89661-30Z90		
			89661-30Z91		
			89661-30Z92		
			89661-30Z93		
			89661-53U00		
			89661-24B41		
			89661-3AE30		
			89661-78050		
			89661-78051		
			89661-78052		
			89661-78053		
			89661-78054		
			89661-78055		
			89661-78060		
			89661-78061		
			89661-78062		
			89661-78063		
89661-78064					
89661-78065					
89661-78070					
89661-78071					
89661-78072					
89661-78073					
89661-78074					
89661-78075					

APPLICABLE WARRANTY

- This repair is covered under the Lexus Federal Emissions 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

MODEL YEAR	MODEL	DRIVETRAIN	PART NUMBER		PART NAME	QTY
			PREVIOUS	NEW		
2016	IS 200t	-	89661-53S60 89661-53S61 89661-53S62	89661-53S63	Computer, Engine Control (ECM/PCM)	-
	RC 200t		89661-24A70 89661-24A71 89661-24A72	89661-24A73		
	GS 200t		89661-30Z90 89661-30Z91 89661-30Z92 89661-30Z93	89661-30Z94		
2015 – 2017	NX 200t	FF/FF F-Sport	89661-78050 89661-78051 89661-78052 89661-78053 89661-78054 89661-78055	89661-78056		
		AWD	89661-78060 89661-78061 89661-78062 89661-78063 89661-78064 89661-78065	89661-78066		
		AWD F-Sport	89661-78070 89661-78071 89661-78072 89661-78073 89661-78074 89661-78075	89661-78076		
2017	IS 200t	-	89661-53U00	89661-53U01		
	RC 200t		89661-24B41	89661-24B42		
	GS 200t		89661-3AE30	89661-3AE31		
-	-	-	00451-00001-LBL		Authorized Modification Labels	1

NOTE

- The ECM (PCM) should NOT be replaced as part of the Repair Procedure.
- Authorized Modification Labels may be ordered in packages of 25 from the Materials Distribution Center (MDC) through *Dealer Daily – Parts – Dealer Support Materials Orders*.

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Required Tools & Equipment

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

NOTE

- **ONLY ONE** of the Techstream units listed above is required.
- Software version 12.20.024 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
GR8 Battery Diagnostic Station*	00002-MCGR8	1

NOTE

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

* Essential SST.

Calibration Information

MODEL YEAR	VEHICLE	CALIBRATION ID	
		PREVIOUS	NEW
2016	IS 200t	8966353N8100	8966353N8500
		8966353N8200	
		8966353N8300	
		8966353N8400	
	RC 200t	896632436200	896632436500
		896632436300	
		896632436400	
	GS 200t	8966330Y0000	8966330Y0400
		8966330Y0100	
8966330Y0200			
8966330Y0300			

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Calibration Information (Continued)

MODEL YEAR	VEHICLE	DRIVETRAIN	CALIBRATION ID	
			PREVIOUS	NEW
2015 – 2017	NX 200t	FF/FF F-Sport	896637805200 896637805300 896637805400 896637805500 896637805600 896637805700	896637805800
		AWD	896637806200 896637806300 896637806400 896637806500 896637806600 896637806700	896637806800
		AWD F-Sport	896637807200 896637807300 896637807400 896637807500 896637807600 896637807700	896637807800
2017	IS 200t	-	8966353Q2000	8966353Q2100
	RC 200t		896632443000 896632443100	896632443200
	GS 200t		896633A20000	896633A20100

Repair Procedure

- Using Techstream, check for stored DTCs. Confirm the following DTC is present: P137800 – Pre-ignition Detected.
Is the DTC present?
 - YES** — Continue to step 2.
 - NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

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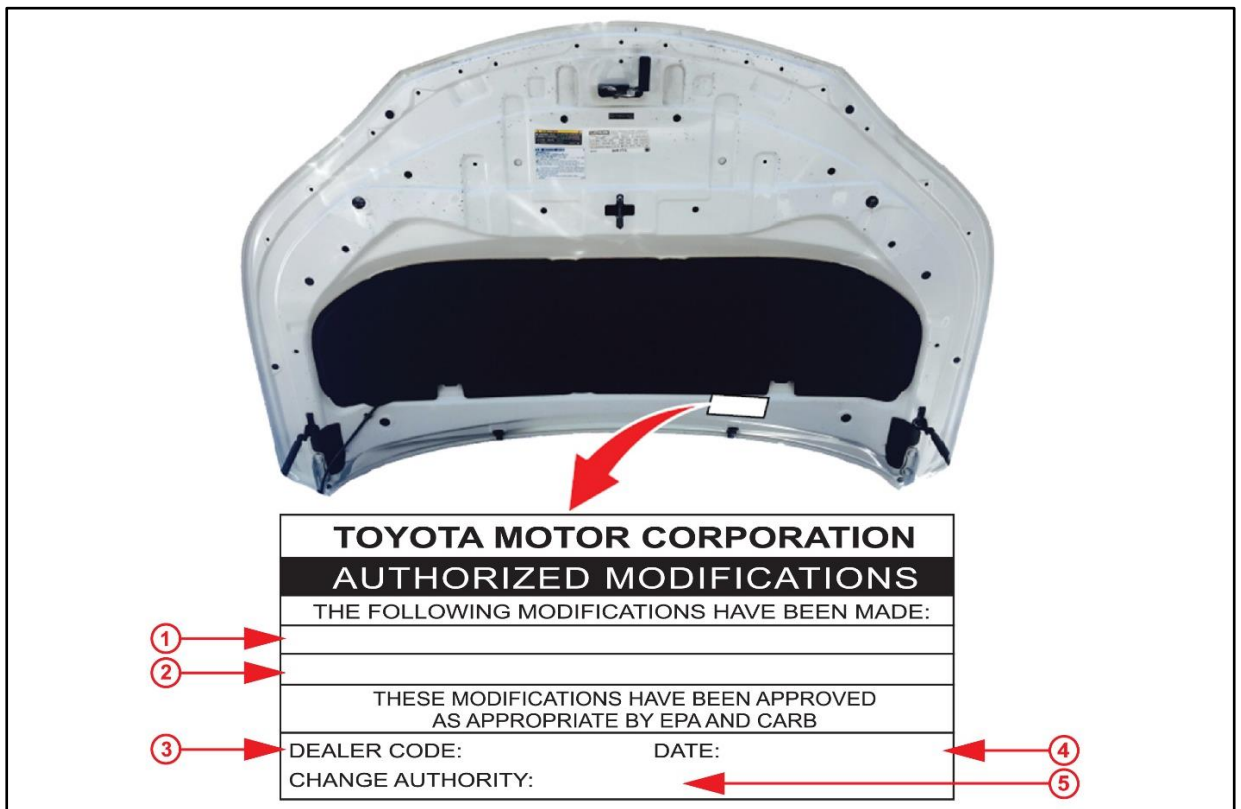
Repair Procedure (Continued)

2. Check for the Authorized Modifications Label affixed to the vehicle in the location shown below. Confirm if the ECM (PCM) calibration has been updated.

Is the calibration ID listed the latest ECM (PCM) calibration?

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

Figure 1. Location of Authorized Modifications Label for 2016 – 2017 IS 200t, GS 200t, RC 200t and 2015 – 2017 NX 200t



1	Replacement ECM (PCM) Part Number (i.e., 89661-78053 or 89661-78063)
2	New Calibration ID (i.e., 896637805800 or 896637806800)
3	Dealer Code

4	Date Completed
5	This SB Number

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Repair Procedure (Continued)

3. Flash reprogram the ECM (PCM).

NOTE

- The GR8 Battery Diagnostic Station **MUST** be used in Power Supply Mode to maintain battery voltage at 13.5V while flash reprogramming vehicle.
- For details on how to use the GR8 Battery Diagnostic Station, refer to the ["GR8 Instruction Manual"](#) located on the Technical Information System (TIS), *Diagnostics – Tools & Equipment – Battery Diagnostics*.

Follow the procedures outlined in Service Bulletin No. [L-SB-0021-14](#) "Techstream ECU Flash Reprogramming Procedure," and flash the ECM (PCM) with the NEW calibration file update.

4. Prepare and install the Authorized Modifications Label.
 - A. Using a permanent marker, enter the following information on the label:
 - ECM 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. Affix the Authorized Modifications Label to the vehicle at the location shown in Figure 1. The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.
5. Test drive the vehicle to confirm that the DTC does NOT reset.