

Fuel Pump (Loss of Fuel Pressure)

Service Category Engine/Hybrid System

Section Fuel System

Market USA

Toyota Supports
ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2019 - 2020	ES300H	
2018 - 2020	ES350, LC500, LC500H, LS500, NX300	
2013 - 2019	GS350	
2014 - 2018	GS450H	
2014 - 2019	GX460, IS350	
2017	IS200T, RC200T	
2018 - 2019	IS300, RC300, RC350	
2013 - 2015	LS460, LS600H	
2014 - 2020	LX570	
2015 - 2017	NX200T, RC350	
2017 - 2020	RX350, RX450H	
2019	UX200	

Fuel Pump (Loss of Fuel Pressure)

Introduction

Some 2013 – 2020 model year Lexus vehicles may exhibit a hard start and/or MIL ON condition with one or more of the following Diagnostic Trouble Codes (DTCs):

- DTC P0171 and/or P0174 (System Too Lean Bank 1/Bank 2)
- DTC P0087 Fuel Rail / System Pressure – Too Low

Techstream data list analysis may reveal positive fuel trims including a no pressure condition verified by a manual fuel pressure gauge. Follow the Repair Procedure in this bulletin to address these conditions.

Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
234021	R & R Pump, Fuel	*	23220-#####** 23221-#####**	8A	50

*See the Flat Rate Manual.

**Warranty claim MUST be submitted with the correct 10-digit OFP. Choose the correct OFP 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 Powertrain Warranty. This warranty is in effect for 72 months or 70,000 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.**
- **For some of the vehicles and model years equipped with a California Certified Emission Control System that are registered and operated in California or any state that adopts California emission warranty – California Emission Long-Term Defect Warranty is in effect for 7 years or 70,000 miles from the vehicle's in-service date, whichever occurs first. (Please reference Policy 4.7 to confirm coverage and for additional information.)**

Fuel Pump (Loss of Fuel Pressure)

Parts Information

PART NUMBER	PART NAME	QTY
04009-86136 04009-86138 04009-86150 04009-86231 04009-86250 04009-86325 04009-86531	Kit, Pump, Fuel	1
04000-07660 04009-80153 04009-80253 04009-80547 04009-80647 04009-80747 04009-80848 04009-80952 04009-81152 04009-81433 04009-81630	Replacement Kit, Fuel Pump	1
04009-9520C	Holder, FT Pipe, W/Retainer & Seal SSP Kit	1
04009-95106	Hook, Rear Seat Cushion Lock SSP Kit	1

Fuel Pump (Loss of Fuel Pressure)

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.

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
Fuel Pressure Gauge	09268-45101-1A	1
Battery Diagnostic Tool*	DCA-8000P T	1

*Essential SST.

NOTE

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

Fuel Pump (Loss of Fuel Pressure)

Repair Procedure

1. Confirm the condition exists.

Is a hard start condition and/or ANY of the DTCs described in the Introduction present (DTC P0171, DTC P0174, and/or DTC P0087)?

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

2. Check the fuel pressure.

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

- [2019](#) / [2020](#) ES 300h:
Engine/Hybrid System – Fuel System – “A25A-FXS (Fuel): Fuel System: On-Vehicle Inspection”
- [2018](#) ES 350:
Engine/Hybrid System – Fuel System – “2GR-FE (Fuel): Fuel System: On-Vehicle Inspection”
- [2019](#) / [2020](#) ES 350:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel System: On-Vehicle Inspection”
- [2013](#) / [2014](#) / [2015](#) GS 350:
Engine/Hybrid System – Fuel System – “2GR-FSE (Fuel): Fuel System: On-Vehicle Inspection”
- [2016](#) / [2017](#) / [2018](#) / [2019](#) GS 350:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel System: On-Vehicle Inspection”
- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) GS 450h:
Engine/Hybrid System – Fuel System – “2GR-FXE (Fuel): Fuel System: On-Vehicle Inspection”
- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) GX 460:
Engine/Hybrid System – Fuel System – “1UR-FE (Fuel): Fuel System: On-Vehicle Inspection”
- [2017](#) IS 200t:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel System: On-Vehicle Inspection”
- [2018](#) / [2019](#) IS 300:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel System: On-Vehicle Inspection”

Fuel Pump (Loss of Fuel Pressure)

Repair Procedure (continued)

- [2014](#) / [2015](#) / [2016](#) / [2017](#) IS 350:
Engine/Hybrid System – Fuel System – “2GR-FSE (Fuel): Fuel System: On-Vehicle Inspection”
- [2018](#) / [2019](#) IS 350:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel System: On-Vehicle Inspection”
- [2018](#) / [2019](#) / [2020](#) LC 500:
Engine/Hybrid System – Fuel System – “2UR-GSE (Fuel): Fuel System: On-Vehicle Inspection”
- [2018](#) / [2019](#) / [2020](#) LC 500h:
Engine/Hybrid System – Fuel System – “8GR-FXS (Fuel): Fuel System: On-Vehicle Inspection”
- [2013](#) / [2014](#) / [2015](#) LS 460:
Engine/Hybrid System – Fuel System – “1UR-FSE (Fuel): Fuel System: On-Vehicle Inspection”
- [2018](#) / [2019](#) / [2020](#) LS 500:
Engine/Hybrid System – Fuel System – “V35A-FTS (Fuel): Fuel System: On-Vehicle Inspection”
- [2013](#) / [2014](#) / [2015](#) LS 600h:
Engine/Hybrid System – Fuel System – “2UR-FSE (Fuel): Fuel System: On-Vehicle Inspection”
- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) / [2020](#) LX 570:
Engine/Hybrid System – Fuel System – “3UR-FE (Fuel): Fuel System: On-Vehicle Inspection”
- [2015](#) / [2016](#) / [2017](#) NX 200t:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel System: On-Vehicle Inspection”
- [2018](#) / [2019](#) / [2020](#) NX 300:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel System: On-Vehicle Inspection”
- [2017](#) RC 200t:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel System: On-Vehicle Inspection”
- [2018](#) / [2019](#) RC 300:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel System: On-Vehicle Inspection”

Fuel Pump (Loss of Fuel Pressure)

Repair Procedure (continued)

- [2018](#) / [2019](#) RC 350:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel System: On-Vehicle Inspection”
- [2017](#) / [2018](#) / [2019](#) / [2020](#) RX 450h:
Engine/Hybrid System – Fuel System – “2GR-FXS (Fuel): Fuel System: On-Vehicle Inspection”
- [2019](#) UX 200:
Engine/Hybrid System – Fuel System – “M20A-FKS (Fuel): Fuel System: On-Vehicle Inspection”

Is the fuel pressure within standard parameters?

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

3. Replace the fuel pump.

A. Remove the fuel pump.

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

- [2019](#) / [2020](#) ES 300h:
Engine/Hybrid System – Fuel System – “A25A-FXS (Fuel): Fuel Pump: Removal”
- [2018](#) ES 350:
Engine/Hybrid System – Fuel System – “2GR-FE (Fuel): Fuel Pump: Removal”
- [2019](#) / [2020](#) ES 350:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump: Removal”
- [2013](#) / [2014](#) / [2015](#) GS 350:
Engine/Hybrid System – Fuel System – “2GR-FSE (Fuel): Fuel Pump: Removal”
- [2016](#) / [2017](#) / [2018](#) / [2019](#) GS 350:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump: Removal”
- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) GS 450h:
Engine/Hybrid System – Fuel System – “2GR-FXE (Fuel): Fuel Pump: Removal”
- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) GX 460:
Engine/Hybrid System – Fuel System – “1UR-FE (Fuel): Fuel Pump: Removal”
- [2017](#) IS 200t:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel Pump: Removal”
- [2018](#) / [2019](#) IS 300:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel Pump: Removal”

Fuel Pump (Loss of Fuel Pressure)

Repair Procedure (continued)

- [2014](#) / [2015](#) / [2016](#) / [2017](#) IS 350:
Engine/Hybrid System – Fuel System – “2GR-FSE (Fuel): Fuel Pump: Removal”
- [2018](#) / [2019](#) IS 350:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump: Removal”
- [2018](#) / [2019](#) / [2020](#) LC 500h:
Engine/Hybrid System – Fuel System – “8GR-FXS (Fuel): Fuel Pump: Removal”
- [2013](#) / [2014](#) / [2015](#) LS 460:
Engine/Hybrid System – Fuel System – “1UR-FSE (Fuel): Fuel Pump: Removal”
- [2018](#) / [2019](#) / [2020](#) LS 500:
Engine/Hybrid System – Fuel System – “V35A-FTS (Fuel): Fuel Pump: Removal”
- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) / [2020](#) LX 570:
Engine/Hybrid System – Fuel System – “3UR-FE (Fuel): Fuel Pump: Removal”
- [2015](#) / [2016](#) / [2017](#) NX 200t:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel Pump: Removal”
- [2018](#) / [2019](#) / [2020](#) NX 300:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel Pump: Removal”
- [2017](#) RC 200T:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel Pump: Removal”
- [2018](#) / [2019](#) RC 300:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel Pump: Removal”
- [2015](#) / [2016](#) / [2017](#) RC 350:
Engine/Hybrid System – Fuel System – “2GR-FSE (Fuel): Fuel Pump: Removal”
- [2018](#) / [2019](#) RC 350:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump: Removal”
- [2017](#) / [2018](#) / [2019](#) / [2020](#) RX 350:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump (For TMC Made): Removal”
- [2017](#) / [2018](#) / [2019](#) / [2020](#) RX 350:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump (For TMMC Made): Removal”
- [2017](#) / [2018](#) / [2019](#) / [2020](#) RX 450h:
Engine/Hybrid System – Fuel System – “2GR-FXS (Fuel): Fuel Pump: Removal”
- [2019](#) UX 200:
Engine/Hybrid System – Fuel System – “M20A-FKS (Fuel): Fuel Pump: Removal”

Fuel Pump (Loss of Fuel Pressure)

Repair Procedure (continued)

B. Install the NEW fuel pump.

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

- [2019](#) / [2020](#) ES 300h:
Engine/Hybrid System – Fuel System – “A25A-FXS (Fuel): Fuel Pump: Installation”
- [2018](#) ES 350:
Engine/Hybrid System – Fuel System – “2GR-FE (Fuel): Fuel Pump: Installation”
- [2019](#) / [2020](#) ES 350:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump: Installation”
- [2013](#) / [2014](#) / [2015](#) GS 350:
Engine/Hybrid System – Fuel System – “2GR-FSE (Fuel): Fuel Pump: Installation”
- [2016](#) / [2017](#) / [2018](#) / [2019](#) GS 350:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump: Installation”
- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) GS 450h:
Engine/Hybrid System – Fuel System – “2GR-FXE (Fuel): Fuel Pump: Installation”
- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) GX 460:
Engine/Hybrid System – Fuel System – “1UR-FE (Fuel): Fuel Pump: Installation”
- [2017](#) IS 200t:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel Pump: Installation”
- [2018](#) / [2019](#) IS 300:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel Pump: Installation”
- [2014](#) / [2015](#) / [2015](#) / [2016](#) / [2017](#) IS 350:
Engine/Hybrid System – Fuel System – “2GR-FSE (Fuel): Fuel Pump: Installation”
- [2018](#) / [2019](#) IS 350:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump: Installation”
- [2018](#) / [2019](#) / [2020](#) LC 500:
Engine/Hybrid System – Fuel System – “2UR-GSE (Fuel): Fuel Pump: Installation”
- [2018](#) / [2019](#) / [2020](#) LC 500h:
Engine/Hybrid System – Fuel System – “8GR-FXS (Fuel): Fuel Pump: Installation”
- [2013](#) / [2014](#) / [2015](#) LS 460:
Engine/Hybrid System – Fuel System – “1UR-FSE (Fuel): Fuel Pump: Installation”
- [2018](#) / [2019](#) / [2020](#) LS 500:
Engine/Hybrid System – Fuel System – “V35A-FTS (Fuel): Fuel Pump: Installation”
- [2013](#) / [2014](#) / [2015](#) LS 600h:
Engine/Hybrid System – Fuel System – “2UR-FSE (Fuel): Fuel Pump: Installation”
- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) / [2020](#) LX 570:
Engine/Hybrid System – Fuel System – “3UR-FE (Fuel): Fuel Pump: Installation”

Fuel Pump (Loss of Fuel Pressure)

Repair Procedure (continued)

- [2015](#) / [2016](#) / [2017](#) NX 200t:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel Pump: Installation”
- [2018](#) / [2019](#) / [2020](#) NX 300:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel Pump: Installation”
- [2017](#) RC 200t:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel Pump: Installation”
- [2018](#) / [2019](#) RC 300:
Engine/Hybrid System – Fuel System – “8AR-FTS (Fuel): Fuel Pump: Installation”
- [2015](#) / [2016](#) / [2017](#) RC 350:
Engine/Hybrid System – Fuel System – “2GR-FSE (Fuel): Fuel Pump: Installation”
- [2018](#) / [2019](#) RC 350:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump: Installation”
- [2017](#) / [2018](#) / [2019](#) / [2020](#) RX 350:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump (For TMC Made): Installation”
- [2017](#) / [2018](#) / [2019](#) / [2020](#) RX 350:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump (For TMMC Made): Installation”
- [2017](#) / [2018](#) / [2019](#) / [2020](#) RX 450h:
Engine/Hybrid System – Fuel System – “2GR-FXS (Fuel): Fuel Pump: Installation”
- [2019](#) UX 200:
Engine/Hybrid System – Fuel System – “M20A-FKS (Fuel): Fuel Pump: Installation”

4. Clear ALL DTCs and confirm the condition is no longer present.