

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
2014 - 2019	4Runner	
2018 - 2019	86	
2019 - 2020	Avalon HV, Corolla Hatchback, RAV4 HV, Yaris SD MEX-Prod	
2018 - 2020	Avalon, Camry HV	
2018 - 2020	Camry	VDS(s): A11AK, B11HK, B61HK, BZ1HK, C11AK, C31AK, E11AK, E31AK, F11AK, FZ1AK, G11AK, J11AK, K61AK, KZ1AK, L11AK, M11AK, NZ1AK, PZ1AK Engine(s): A25, 2GR Drive Type(s): 2WD
2018 - 2019	Corolla	VDS(s): BURHE Engine(s): 2ZR Drive Type(s): FWD
2020	Corolla	VDS(s): B4RBE, M4RCE, P4RCE, S4RCE, T4RCE Engine(s): M20 Drive Type(s): 2WD
2014	FJ Cruiser	
2017 - 2019	Highlander HV	
2017 - 2019	Highlander	VDS(s): BZRFH, DZ3FH, JZRFH, KZRFH, YZRFH, ZARFH Engine(s): 2GR Drive Type(s): 4WD, 2WD
2014 - 2020	Land Cruiser	
2019 - 2020	RAV4	VDS(s): A1RFV, C1RFV, F1RFV, G1RFV, H1RFV, J1RFV, K1RFV, N1RFV, P1RFV, W1RFV, Y1RFV Engine(s): A25 Drive Type(s): 4WD, 2WD

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2018 - 2020	Sequoia	VDS(s): BY5G1, DY5G1, JY5G1, KY5G1, YY5G1, ZY5G1 Engine(s): 3UR Drive Type(s): 4WD, 2WD
2017 - 2020	Sienna, Tacoma	
2018 - 2020	Tundra	VDS(s): AY5F1, BY5F1, CY5F1, DM5F1, DY5F1, EM5F1, EY5F1, FY5F1, GY5F1, HY5F1, RM5F1, RY5F1, SY5F1, TY5F1, UM5F1, UY5F1 Engine(s): 3UR, 1UR Drive Type(s): 4WD, 2WD
2020	Yaris HB MEX-Prod, Yaris R	

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Introduction

Some 2014 – 2020 model year Toyota 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-#####** SU003-#####** 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 Toyota Powertrain Warranty. This warranty is in effect for 60 months or 60,000 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.)**

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Parts Information

PART NUMBER	PART NAME	QTY
04009-86125 04009-86150 04009-86175 04009-86231 04009-86237 04009-86250 04009-86325 04009-86531	Kit, Pump, Fuel	1
04000-07660 04009-80447 04009-80647 04009-80747 04009-81433 04009-81630 04009-81730	Replacement Kit, Fuel Pump	1
04000-122A0	O-Ring SSP Kit	1
04009-9510C	Retainer, F/P Gauge, W/GKT & Seal SSP Kit	1
04009-9510R	Hook, RR Seat Lock, W/GKT & Seal SSP Kit	1
04009-95106	Hook, Rear Seat Cushion Lock SSP Kit	1
04009-95102	Holder, Fuel Tank Pipe Setting SSP Kit	1
04009-9520C	Holder, FT PIPE, W/Retainer & Seal SSP Kit	1
04000-1210D 04000-121A6	Gasket, Exhaust Pipe SSP Kit	1
04000-121A0	Bolt, Flange SSP Kit	1
SU003-10808	Pump 86	1
23221-WB003	Pump Yaris	1

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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.

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

*Essential SST.

NOTE

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

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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:

- [2018](#) / [2019](#) 86:
Engine/Hybrid System – Fuel System – “FA20 (Fuel): Fuel System: On-Vehicle Inspection”
- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) 4Runner:
Engine/Hybrid System – Fuel System – “1GR-FE (Fuel): Fuel System: On-Vehicle Inspection”
- [2018](#) Avalon:
Engine/Hybrid System – Fuel System – “2GR-FE (Fuel): Fuel System: On-Vehicle Inspection”
- [2019](#) / [2020](#) Avalon:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel System: On-Vehicle Inspection”
- [2019](#) / [2020](#) Avalon Hybrid:
Engine/Hybrid System – Fuel System – “A25A-FXS (Fuel): Fuel System: On-Vehicle Inspection”
- [2018](#) / [2019](#) / [2020](#) Camry:
Engine/Hybrid System – Fuel System – “A25A-FKS (Fuel): Fuel System: On-Vehicle Inspection”
- [2018](#) / [2019](#) / [2020](#) Camry:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel System: On-Vehicle Inspection”
- [2018](#) / [2019](#) / [2020](#) Camry Hybrid:
Engine/Hybrid System – Fuel System – “A25A-FXS (Fuel): Fuel System: On-Vehicle Inspection”
- [2019](#) / [2020](#) Corolla Hatchback:
Engine/Hybrid System – Fuel System – “M20-FKS (Fuel): Fuel System: On-Vehicle Inspection”

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Repair Procedure (continued)

- [2014](#) FJ Cruiser:
Engine/Hybrid System – Fuel System – “1GR-FE (Fuel): Fuel System: On-Vehicle Inspection”
- [2017](#) / [2018](#) / [2019](#) Highlander:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel System: On-Vehicle Inspection”
- [2017](#) / [2018](#) / [2019](#) Highlander Hybrid:
Engine/Hybrid System – Fuel System – “2GR-FXS (Fuel): Fuel System: On-Vehicle Inspection”
- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) / [2020](#) Land Cruiser:
Engine/Hybrid System – Fuel System – “3UR-FE (Fuel): Fuel System: On-Vehicle Inspection”
- [2019](#) / [2020](#) RAV4:
Engine/Hybrid System – Fuel System – “A25A-FKS (Fuel): Fuel System: On-Vehicle Inspection”
- [2019](#) / [2020](#) RAV4 Hybrid:
Engine/Hybrid System – Fuel System – “A25A-FXS (Fuel): Fuel System: On-Vehicle Inspection”
- [2018](#) / [2019](#) / [2020](#) Sequoia:
Engine/Hybrid System – Fuel System – “3UR-FE (Fuel): Fuel System: On-Vehicle Inspection”
- [2017](#) / [2018](#) / [2019](#) / [2020](#) Sienna:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel System: On-Vehicle Inspection”
- [2017](#) / [2018](#) / [2019](#) / [2020](#) Tacoma:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel System: On-Vehicle Inspection”
- [2017](#) / [2018](#) / [2019](#) / [2020](#) Tacoma:
Engine/Hybrid System – Fuel System – “2TR-FE (Fuel): Fuel System: On-Vehicle Inspection”
- [2018](#) / [2019](#) / [2020](#) Tundra:
Engine/Hybrid System – Fuel System – “3UR-FE (Fuel): Fuel System: On-Vehicle Inspection”
- [2018](#) / [2019](#) Tundra:
Engine/Hybrid System – Fuel System – “1UR-FE (Fuel): Fuel System: On-Vehicle Inspection”

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Repair Procedure (continued)

- [2020](#) Yaris HB MEX-Prod:
Engine/Hybrid System – Fuel System – “P5 (Fuel): Fuel System: On-Vehicle Inspection”
- [2020](#) Yaris R:
Engine/Hybrid System – Fuel System – “P5 (Fuel): Fuel System: On-Vehicle Inspection”
- [2019](#) / [2020](#) Yaris SD MEX-Prod:
Engine/Hybrid System – Fuel System – “P5 (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:

- [2018](#) / [2019](#) 86:
Engine/Hybrid System – Fuel System – “FA20 (Fuel): Fuel Pump: Removal”
- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) 4Runner:
Engine/Hybrid System – Fuel System – “1GR-FE (Fuel): Fuel Pump: Removal”
- [2018](#) Avalon:
Engine/Hybrid System – Fuel System – “2GR-FE (Fuel): Fuel Pump: Removal”
- [2019](#) / [2020](#) Avalon:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump: Removal”
- [2019](#) / [2020](#) Avalon HV:
Engine/Hybrid System – Fuel System – “A25A-FXS (Fuel): Fuel Pump: Removal”
- [2018](#) / [2019](#) / [2020](#) Camry:
Engine/Hybrid System – Fuel System – “A25A-FKS (Fuel): Fuel Pump (for 2WD): Removal”
- [2018](#) / [2019](#) / [2020](#) Camry:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump: Removal”
- [2018](#) / [2019](#) / [2020](#) Camry Hybrid:
Engine/Hybrid System – Fuel System – “A25A-FXS (Fuel): Fuel Pump: Removal”
- [2018](#) / [2019](#) Corolla:
Engine/Hybrid System – Fuel System – “2ZR-FE (Fuel): Fuel Pump: Removal”

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Repair Procedure (continued)

- [2019](#) / [2020](#) Corolla and Corolla Hatchback:
Engine/Hybrid System – Fuel System – “M20-FKS (Fuel): Fuel Pump (w/ Canister Pump Module (for Double Wishbone Type Suspension)): Removal”
- [2014](#) FJ Cruiser:
Engine/Hybrid System – Fuel System – “1GR-FE (Fuel): Fuel Pump: Removal”
- [2017](#) / [2018](#) / [2019](#) Highlander:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump: Removal”
- [2017](#) / [2018](#) / [2019](#) Highlander Hybrid:
Engine/Hybrid System – Fuel System – “2GR-FXS (Fuel): Fuel Pump: Removal”
- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) / [2020](#) Land Cruiser:
Engine/Hybrid System – Fuel System – “3UR-FE (Fuel): Fuel Pump: Removal”
- [2019](#) / [2020](#) RAV4:
Engine/Hybrid System – Fuel System – “A25A-FKS (Fuel): Fuel Pump (w/ Canister Pump Module): Removal”
- [2019](#) / [2020](#) RAV4 Hybrid:
Engine/Hybrid System – Fuel System – “A25A-FXS (Fuel): Fuel Pump (w/ Canister Pump Module): Removal”
- [2018](#) / [2019](#) / [2020](#) Sequoia:
Engine/Hybrid System – Fuel System – “3UR-FE (Fuel): Fuel Pump: Removal”
- [2017](#) / [2018](#) / [2019](#) / [2020](#) Sienna:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump: Removal”
- [2017](#) / [2018](#) / [2019](#) / [2020](#) Tacoma:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump: Removal”
- [2017](#) / [2018](#) / [2019](#) / [2020](#) Tacoma:
Engine/Hybrid System – Fuel System – “2TR-FE (Fuel): Fuel Pump: Removal”
- [2018](#) / [2019](#) Tundra:
Engine/Hybrid System – Fuel System – “1UR-FE (Fuel): Fuel Pump: Removal”
- [2018](#) / [2019](#) / [2020](#) Tundra:
Engine/Hybrid System – Fuel System – “3UR-FE (Fuel): Fuel Pump: Removal”
- [2020](#) Yaris HB MEX-Prod:
Engine/Hybrid System – Fuel System – “P5 (Fuel): Fuel Pump: Removal”
- [2020](#) Yaris R:
Engine/Hybrid System – Fuel System – “P5 (Fuel): Fuel Pump: Removal”
- [2019](#) / [2020](#) Yaris SD MEX-Prod:
Engine/Hybrid System – Fuel System – “P5 (Fuel): Fuel Pump: Removal”

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Repair Procedure (continued)

B. Install the NEW fuel pump.

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

- [2018](#) / [2019](#) 86:
Engine/Hybrid System – Fuel System – “FA20 (Fuel): Fuel System: On-Vehicle Inspection”
- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) 4Runner:
Engine/Hybrid System – Fuel System – “1GR-FE (Fuel): Fuel Pump: Installation”
- [2018](#) Avalon:
Engine/Hybrid System – Fuel System – “2GR-FE (Fuel): Fuel Pump: Installation”
- [2019](#) / [2020](#) Avalon:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump: Installation”
- [2019](#) / [2020](#) Avalon Hybrid:
Engine/Hybrid System – Fuel System – “A25A-FXS (Fuel): Fuel Pump: Installation”
- [2018](#) / [2019](#) / [2020](#) Camry:
Engine/Hybrid System – Fuel System – “2GR-FE (Fuel): Fuel Pump: Installation”
- [2018](#) / [2019](#) / [2020](#) Camry:
Engine/Hybrid System – Fuel System – “A25A-FKS (Fuel): Fuel Pump (for 2WD): Installation”
- [2018](#) / [2019](#) / [2020](#) Camry Hybrid:
Engine/Hybrid System – Fuel System – “A25A-FXS (Fuel): Fuel Pump: Installation”
- [2018](#) / [2019](#) Corolla:
Engine/Hybrid System – Fuel System – “2ZR-FE (Fuel): Fuel Pump: Installation”
- [2019](#) / [2020](#) Corolla Hatchback:
Engine/Hybrid System – Fuel System – “M20-FKS (Fuel): Fuel Pump (w/ Canister Pump Module (for Double Wishbone Type Suspension)): Installation”
- [2014](#) FJ Cruiser:
Engine/Hybrid System – Fuel System – “1GR-FE (Fuel): Fuel Pump: Installation”
- [2017](#) / [2018](#) / [2019](#) Highlander:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump: Installation”
- [2017](#) / [2018](#) / [2019](#) Highlander HV:
Engine/Hybrid System – Fuel System – “2GR-FXS (Fuel): Fuel Pump: Installation”
- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) / [2020](#) Land Cruiser:
Engine/Hybrid System – Fuel System – “3UR-FE (Fuel): Fuel Pump: Installation”

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Repair Procedure (continued)

- [2019](#) / [2020](#) RAV4:
Engine/Hybrid System – Fuel System – “A25A-FKS (Fuel): Fuel Pump (w/ Canister Pump Module): Installation”
- [2019](#) / [2020](#) RAV4 Hybrid:
Engine/Hybrid System – Fuel System – “A25A-FXS (Fuel): Fuel Pump (w/ Canister Pump Module): Installation”
- [2018](#) / [2019](#) / [2020](#) Sequoia:
Engine/Hybrid System – Fuel System – “3UR-FE (Fuel): Fuel Pump: Installation”
- [2017](#) / [2018](#) / [2019](#) / [2020](#) Sienna:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump: Installation”
- [2017](#) / [2018](#) / [2019](#) / [2020](#) Tacoma:
Engine/Hybrid System – Fuel System – “2GR-FKS (Fuel): Fuel Pump: Installation”
- [2017](#) / [2018](#) / [2019](#) / [2020](#) Tacoma:
Engine/Hybrid System – Fuel System – “2TR-FE (Fuel): Fuel Pump: Installation”
- [2018](#) / [2019](#) Tundra:
Engine/Hybrid System – Fuel System – “1UR-FE (Fuel): Fuel Pump: Installation”
- [2018](#) / [2019](#) / [2020](#) Tundra:
Engine/Hybrid System – Fuel System – “3UR-FE (Fuel): Fuel Pump: Installation”
- [2020](#) Yaris HB MEX-Prod:
Engine/Hybrid System – Fuel System – “P5 (Fuel): Fuel Pump: Installation”
- [2020](#) Yaris R:
Engine/Hybrid System – Fuel System – “P5 (Fuel): Fuel Pump: Installation”
- [2019](#) / [2020](#) Yaris SD MEX-Prod:
Engine/Hybrid System – Fuel System – “P5 (Fuel): Fuel Pump: Installation”

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