

Low Coolant, MIL ON DTC P148F00, and/or Poor Heater Performance

Service Category Engine/Hybrid System

Section Cooling

Market USA

Toyota Supports
ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2017 - 2019	Prius Prime	
2016 - 2019	Prius	

Introduction

Some 2016 – 2019 model year Prius and 2017 – 2019 model year Prius Prime vehicles may exhibit one or more of the following conditions due to a coolant leakage at the front exhaust pipe heat exchanger:

- Low coolant level
- MIL ON accompanied by Diagnostic Trouble Code (DTC) P148F00
- Poor heater performance

The front exhaust pipe with heat exchanger assembly has been updated. Follow the Repair Procedure in this bulletin to address this condition.

Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
170171P	R & R Front Exhaust Pipe Assembly	1.5	17410-37B52 17410-37B50 17410-37A00	64	12

APPLICABLE WARRANTY

- This repair is covered under the Toyota 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.
- For 2016 and 2017 model year Prius and 2017 – 2019 model year Prius Prime vehicles, sold, registered, and normally operated in California, Connecticut, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Rhode Island, and Vermont. The California Emissions Defect and Performance Warranty coverage is 180 months from the date of first use or 150,000 miles (whichever occurs first).

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Parts Information

PART NUMBER		PART NAME	QTY
PREVIOUS	NEW		
17410-37B52	17410-37D40	Pipe Assy, Exhaust, Front	1
17410-37B50			
17410-37A00			
17451-0D140		Gasket, Exhaust Pipe	1
17451-F2010			

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.

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Repair Procedure

1. Is the vehicle exhibiting ANY of the following conditions?
 - Low coolant level (or coolant was recently added to address a low-level condition)
 - MIL ON accompanied by DTC P148F00
 - Poor heater performance
 - **YES** — Continue to step 2.
 - **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual procedure.
2. Inspect for signs of coolant leakage into the exhaust system from the front exhaust pipe heat exchanger.

CAUTION

- Do NOT remove the reserve tank cap and air release valve while the engine or radiator assembly are still hot. Pressurized, hot engine coolant and steam may be released and cause serious burns.
Refer to TIS, applicable model and model year Repair Manual:
 - [2016](#) / [2017](#) / [2018](#) / [2019](#) Prius:
Engine/Hybrid System – Cooling – “2ZR-FXE (Cooling): Cooling System: On-Vehicle Inspection”
 - [2017](#) / [2018](#) / [2019](#) Prius Prime:
Engine/Hybrid System – Cooling – “2ZR-FXE (Cooling): Cooling System: On-Vehicle Inspection”
- To prevent burns, do NOT touch the engine, exhaust pipe, or other high temperature components while the engine is hot.
Refer to TIS, applicable model and model year Repair Manual:
 - [2016](#) / [2017](#) / [2018](#) / [2019](#) Prius:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE (Intake / Exhaust): Exhaust Pipe: Removal”
 - [2017](#) / [2018](#) / [2019](#) Prius Prime:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE (Intake / Exhaust): Exhaust Pipe: Removal”

- A. When the engine and exhaust system are cold, and the engine is OFF; unbolt and disconnect the rear exhaust pipe assembly from the front exhaust pipe assembly at the mating flange.

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Repair Procedure (continued)

- B. Perform a visual inspection inside the exhaust pipe for signs of coolant leakage into the exhaust system.
- C. If no visible signs of leakage are found during the initial inspection, pressurize the cooling system to 122 kPa (1.2 kgf/cm², 17 psi), and recheck for visible signs of leakage into the exhaust from the heat exchanger.

HINT

Inserting a borescope into the front exhaust pipe may aid in leak identification.

3. Was ANY leakage found?
 - **YES** — Continue to step 4.
 - **NO** — This bulletin does NOT apply. Reassemble the vehicle using a NEW exhaust pipe gasket and continue diagnosis using the applicable Repair Manual procedures.
4. Remove the front exhaust pipe assembly.
Refer to TIS, applicable model and model year Repair Manual:
 - [2016](#) / [2017](#) / [2018](#) / [2019](#) Prius:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE (Intake / Exhaust): Exhaust Pipe: Removal”
 - [2017](#) / [2018](#) / [2019](#) Prius Prime:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE (Intake / Exhaust): Exhaust Pipe: Removal”
5. Install the NEW front exhaust pipe assembly.
Refer to TIS, applicable model and model year Repair Manual:
 - [2016](#) / [2017](#) / [2018](#) / [2019](#) Prius:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE (Intake / Exhaust): Exhaust Pipe: Installation”
 - [2017](#) / [2018](#) / [2019](#) Prius Prime:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE (Intake / Exhaust): Exhaust Pipe: Installation”

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Repair Procedure (continued)

6. Using Techstream, clear ANY stored DTCs.

7. Perform Health Check to confirm if ANY DTCs remain.
Are ANY DTCs present?
 - **YES** — Continue diagnosis using the applicable Repair Manual procedure.
 - **NO** — Start the engine and warm it up to normal operating temperature. Then, test-drive to confirm proper vehicle operation.