

MIL ON With DTC P162B87 and/or DTC P15AD87

Service CategoryPower Source/Network

SectionBattery/Charging

MarketUSA

Toyota Supports ASE Certification

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2023	Highlander	
2022 - 2024	Tundra	

REVISION NOTICE

- December 12, 2024 Rev2:
- The Warranty Information and Parts Information sections have been updated.
- October 08, 2024 Rev1:
- Applicability has been updated to include 2023 model year Highlander vehicles.
 - The Production Change Information, Required Tools & Equipment, and Repair Procedure sections have been updated.
- Any previous printed versions of this bulletin should be discarded.

Introduction

Some 2022 – 2024 model year Tundra and 2023 model year Highlander vehicles may exhibit a MIL ON condition with Diagnostic Trouble Codes (DTCs) P162B87 (Lost Communication with Battery Monitor Module Missing Message) and/or P15AD87 (Active Grille Air Shutter "A" Missing) present. The battery state sensor assembly has been updated to prevent the condition from occurring. Follow the Repair Procedure in this bulletin to address this condition.

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Production Change Information

This bulletin applies to:

- All 2023 model year Highlander vehicles
- All 2022 – 2023 model year Tundra vehicles
- 2024 model year Tundra vehicles produced **BEFORE** the Production Change Effective VINs show below.

MODEL	PLANT	DRIVETRAIN	PRODUCTION CHANGE EFFECTIVE VIN
Tundra	TMMTX	2WD	5TF##5AA#RX032769
			5TF##5AB#RX032769
			5TF##5BC#RX003136
			5TF##5CD#RX001814
		4WD	5TF##5DA#RX161584
			5TF##5DB#RX161584
			5TF##5EC#RX024762
			5TF##5GD#RX003011

Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
EL2409	R & R Battery State Sensor Assembly	0.4	28850-#####*	87	16

*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 Basic Warranty. This warranty is in effect for 36 months or 36,000 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

PART NUMBER		PART NAME	QTY
PREVIOUS	NEW		
28850-#####	28850-F4010	Battery State Sensor Assembly	1

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.
- GTS+ Software version 2024.03.004.02 or later is required.
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787 or by visiting *TIS – Diagnostics – Tools & Equipment – Techstream Order Portal*.

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Repair Procedure

1. Confirm the condition exists.

Does the vehicle exhibit a MIL ON condition with DTCs P162B87 (Lost Communication with Battery Monitor Module Missing Message) and/or P15AD87 (Active Grille Air Shutter "A" Missing) present?

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

2. Remove the battery state sensor assembly.

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

- [2022 – 2023](#) / [2024](#) Tundra:
Power Source / Network – V35A-FTS (Battery / Charging) – Battery Current Sensor (for Gasoline) – Removal
- [2023](#) Highlander:
Power Source / Network – T24A-FTS (Battery / Charging) – Battery Current Sensor – Removal

3. Install the NEW battery state sensor assembly.

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

- [2022 – 2023](#) / [2024](#) Tundra:
Power Source / Network – V35A-FTS (Battery / Charging) – Battery Current Sensor (for Gasoline) – Installation
- [2023](#) Highlander:
Power Source / Network – T24A-FTS (Battery / Charging) – Battery Current Sensor – Installation

4. Using GTS+, clear ANY stored DTCs, and confirm the condition(s) no longer exist.