

Depleted 12V Vehicle Battery

Service Category Power Source/Network

Section Battery/Charging

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2021	Sienna HV	

Introduction

Some 2021 model year Sienna Hybrid vehicles may exhibit a depleted 12V auxiliary battery when in IG-OFF due to a condition in which the Hybrid Vehicle Electronic Control Unit (HV ECU) does not sleep. The HV ECU may not sleep if any of the following have occurred with the vehicle:

- The vehicle was towed or jump-started after a 12V battery discharge.
- The vehicle's 12V battery was disconnected and reconnected, as when accessories were installed.
- The 12V battery terminal(s) or power or ground harnesses were removed to repair the vehicle.
- A new 12V battery was put into the vehicle, or there was an open in the main fusible link.
- Any other condition that may have caused power not properly flowing from the 12V battery through the harness.

The HV ECU logic has been updated to reduce the possibility of this condition. Follow the Repair Procedure in this bulletin to address this condition.

NOTICE

The condition in which the HV ECU does not sleep with resulting discharge of 12V battery may be a secondary condition when other primary causes for low 12V battery voltage occur. The primary cause of low 12V battery conditions will need to be addressed BEFORE performing this TSB.

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Production Change Information

This bulletin applies to vehicles produced **BEFORE** the Production Change Effective VINs shown below.

MODEL	PLANT	DRIVETRAIN	PRODUCTION CHANGE EFFECTIVE VIN
Sienna HV	TMMI	FF	5TDKRKEC#MS030546
		AWD	5TDJSKFC#MS015137

Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
800259	Hybrid Vehicle Electronic Control Unit Reprogramming	1.1	89981-####**	71	74

**Choose the correct OFF for the vehicle being repaired by searching the parts in EPC using the EPC VIN filter. Warranty claims must be submitted with the correct 10-digit OFF.

APPLICABLE WARRANTY

- This repair is covered under the Toyota Hybrid Warranty. This warranty is in effect for 96 months or 100,000 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.

Parts Information

PART NUMBER		PART NAME	QTY
PREVIOUS	NEW		
89981-08010	89981-08011	Computer, Hybrid Vehicle Control	-
89981-08020	89981-08021		
00451-00001-LBL		Authorized Modifications Labels	1

NOTE

- The HV ECU should NOT be replaced as part of the Repair Procedure.
- The HV ECU does not sleep condition with resulting discharge of 12V battery may be a secondary condition when other primary causes for low 12V battery voltage occur.
- Authorized Modifications 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 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 15.30.027 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
Battery Diagnostic Tool*	DCA-8000P.T	1

*Essential SST.

NOTE

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

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Calibration Information

MODEL	DRIVETRAIN	ENGINE	CALIBRATION ID	
			PREVIOUS	NEW
Sienna HV	FF	A25A-FXS	899830801000	899830801100
	AWD		899830802000	899830802100

Repair Procedure

1. Has the vehicle exhibited a depleted 12V auxiliary battery?

NOTICE

The HV ECU may not sleep if any of the following have occurred with the vehicle:

- The vehicle was towed or jump-started after a 12V battery discharge.
- The vehicle's 12V battery was disconnected and reconnected, as when accessories were installed.
- The 12V battery terminal(s) or power or ground harnesses were removed to repair the vehicle.
- A new 12V battery was put into the vehicle, or there was an open in the main fusible link.
- Any other condition that may have caused power not properly flowing from the 12V battery through the harness.

Assure these are addressed before continuing to step 2.

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

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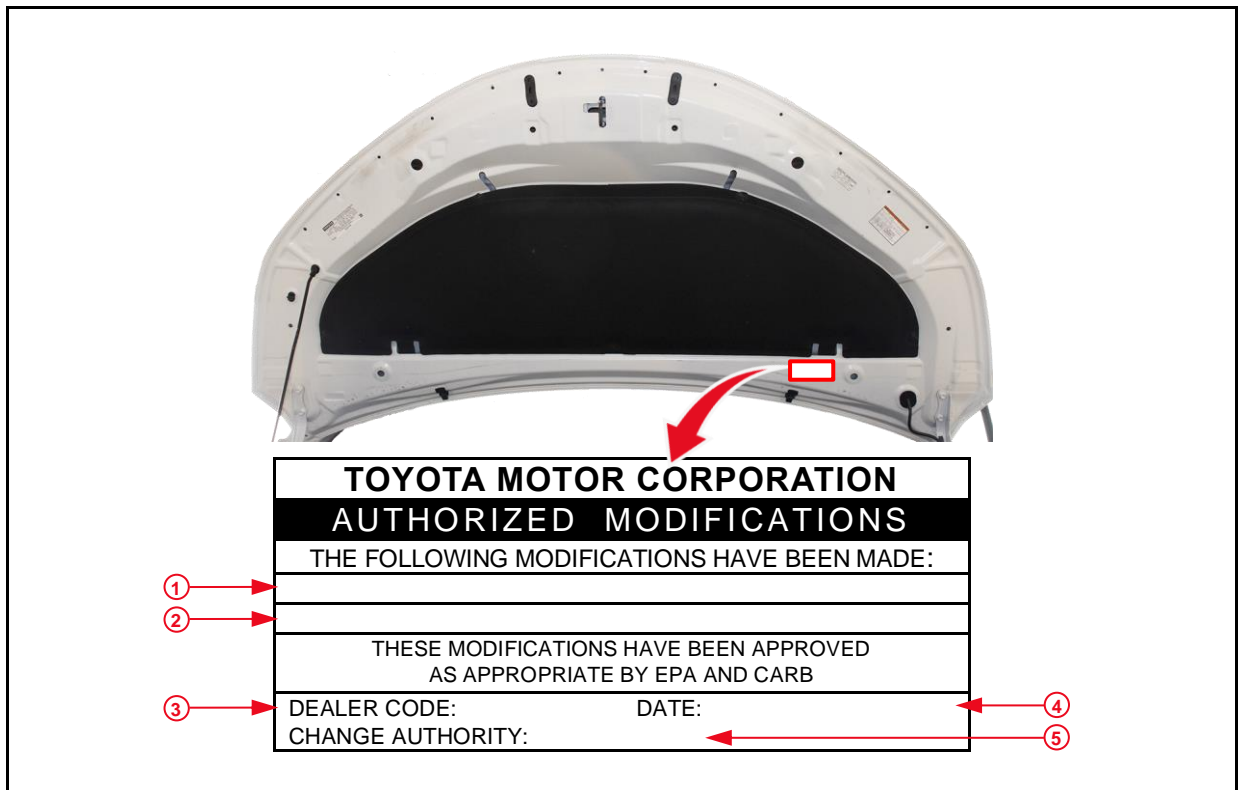
Repair Procedure (continued)

- Use Techstream to confirm if the HV ECU calibration has been updated and check for the Authorized Modifications Label affixed to the vehicle in the location shown below.

Is the calibration ID listed in Techstream and on the label the latest HV ECU 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 on 2021 Sienna HV



1	Replacement ECM (PCM) Part Number (e.g., 89981-08011)
2	New Calibration ID (e.g., 899830801100)
3	Dealer Code

4	Date Completed
5	This SB Number

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Repair Procedure (continued)

- Flash reprogram the HV ECU.

NOTE

- The battery diagnostic tool MUST be used in Power Supply Mode to maintain battery voltage at 13.5V while flash reprogramming the vehicle.
- For details on how to use the battery diagnostic station, refer to the [DCA-8000 Instruction Manual](#) located at *TIS – Diagnostics – Tools & Equipment – Battery Diagnostics*.

Follow the procedures outlined in [T-SB-0107-20](#), *ECU Flash Reprogramming With Security Signature*, and flash the HV ECU with the NEW calibration file update.

- Prepare and install the Authorized Modifications Label.
 - Using a permanent marker, enter the following information on the label:
 - HV ECU 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**]
 - Install the Authorized Modifications Label onto the vehicle at the location shown in Figure 1. The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.
- Test-drive the vehicle to confirm proper operation.