TOYOTA Technical Service Bulletin

Reduced Power When Accelerating From a Stop

Service Category Engine/Hybrid System

Section Hybrid/Battery Control System **Market** USA

Toyota Supports ASE Certification

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2016 - 2017	Prius	VDS(s): KBRFU

Introduction

Some 2016 – 2017 model year Prius vehicles equipped with a NiMH HV battery may exhibit one or both of the following conditions after repeated driving on long downhill slopes:

- When accelerating from a stop, or from extremely low speeds, the vehicle may have a reduction in power.
- The HV battery monitor on the multi-information display continually shows one bar, indicating that the battery State-Of-Charge (SOC) is at its lowest level.

The Hybrid Control Computer (HV ECU) logic has been modified to reduce the possibility of these conditions. Follow the repair procedure below to address these conditions.

Production Change Information

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

MODEL	PLANT	LINE	PRODUCTION CHANGE EFFECTIVE VIN
Prius	Tsutsumi	1	JTDKBRFU#H3035100
		2	JTDKBRFU#H3544587

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Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
EG1656	Reprogram HV ECU	0.4	89981-47###	05	74

APPLICABLE WARRANTY

- **This repair is covered under the Toyota Hybrid Vehicle System Component 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		
89981-47550	89981-47553	Hybrid Vehicle Control Computer (HV ECU)	–
89981-47551			
89981-47552			
00451-00001-LBL		Authorized Modification Labels	1

NOTE

- **The HV ECU should NOT be replaced as part of the Repair Procedure.**
- **Authorized Modification Labels may be ordered in packages of 25 from the Materials Distribution Center (MDC) through *Dealer Daily – Parts – Dealer Support Material Order*.**

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Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
Techstream 2.0*	ADE	TS2UNIT	1
Techstream Lite		TSLITEPDLR01	
Techstream Lite (Green Cable)		TSLP2DLR01	

NOTE

- **Only ONE of the Techstream units listed above is required.**
- **Software version 12.10.018 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
GR8 Battery Diagnostic Station*	00002-MCGR8	1

NOTE

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

* Essential SST.

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Calibration Information

MODEL	ENGINE	CALIBRATION ID			
		PREVIOUS		NEW	
		MAIN	SUB	MAIN	SUB
Prius	2ZR-FXE	899834751000	899854702000	899834751300	899854702200
		899834760000			
		899834751100	899854702100		
		899834751200			
		899834760100			
		899834760200			
		899834734000	899854701000	899834734300	899854701200
		899834734100	899854701100		
		899834734200			
		899834757000	899854707000		
		899834757100	899854707100		
		899834757200			

Repair Procedure

1. Does the vehicle exhibit ANY of the following?
   A. When accelerating from a stop, or from extremely low speeds, the vehicle has a reduction in power.
   B. The HV battery monitor on the multi-information display continually shows one bar, indicating that the battery SOC is at its lowest level.
      - **YES —** Continue to step 2.
      - **NO —** This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
2. Confirm the vehicle has a NiMH battery by inspecting the 5th digit of the VIN.
   Is the 5th character a “B”?
   - **YES —** Continue to step 3.
   - **NO —** This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

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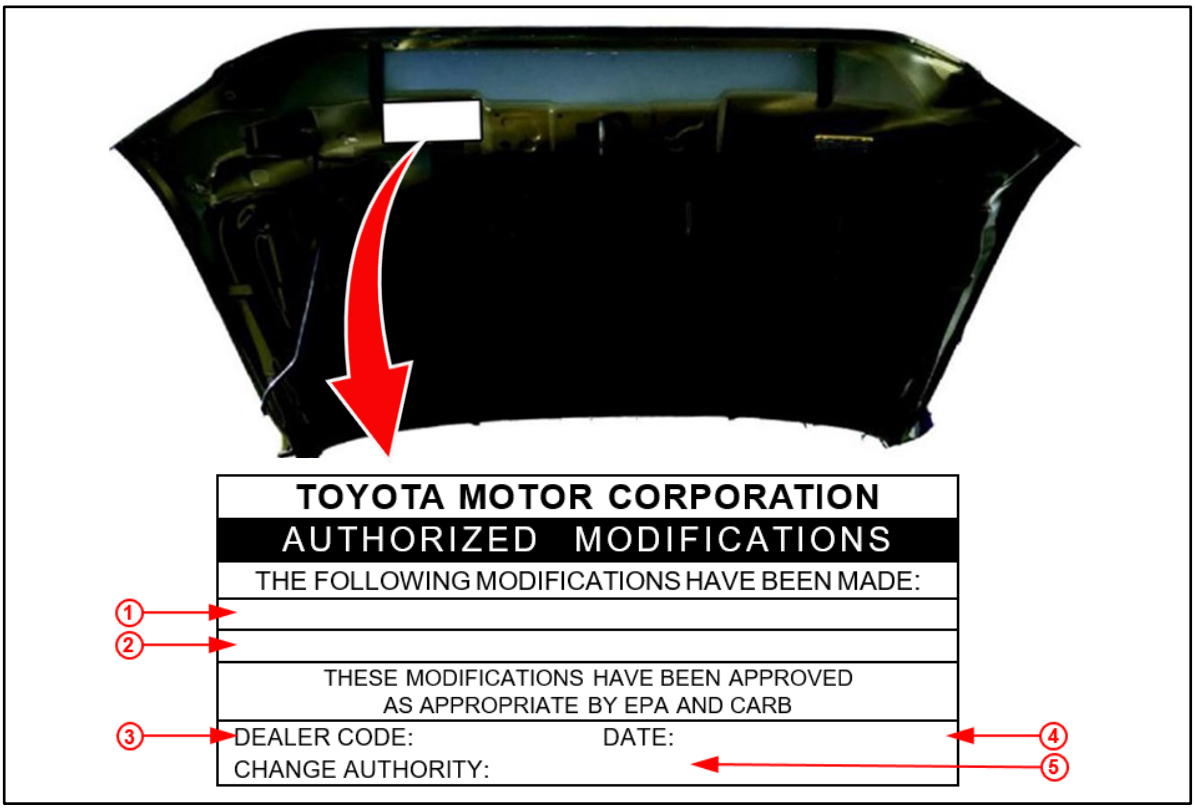
Repair Procedure (Continued)

3. Check for the Authorized Modifications Label affixed to the vehicle in the location shown below. Confirm if the HV ECU calibration has been updated.

   Is the calibration ID listed the latest HV ECU calibration?

   - **YES —** This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
   - **NO —** Continue to step 4.

Figure 1. Location of Authorized Modifications Label on 2016 – 2017 Prius



1	**Replacement HV ECU Part Number (i.e., 89981-47553)**
2	**New Calibration ID(s) (i.e., 899834751300-899854702200)**
3	**Dealer Code**

4	**Date Completed**
5	**This SB Number**

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Repair Procedure (Continued)

4. Flash reprogram the HV ECU.

> **NOTE**
> - **The GR8 Battery Diagnostic Station 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 GR8 Battery Diagnostic Station, refer to the "*GR8 Instruction Manual*" located on the Technical Information System (TIS), *Diagnostics – Tools & Equipment – Battery Diagnostics*.**

   Follow the procedures outlined in Service Bulletin T-SB-0134-16, "*Techstream ECU Flash Reprogramming Procedure,"* and flash the HV ECU with the NEW calibration file update.

5. Prepare and install the Authorized Modifications Label.
   A. Using a permanent marker, enter the following information on the label:
      - ECM 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**]*
   B. Install the Authorized Modifications Label on the vehicle at the location shown in Figure 1. The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.

6. Ready the vehicle ON, warm it up to normal operating temperature and test drive to confirm proper vehicle operation.