TOYOTA
Technical Service Bulletin

MIL ON DTC P0A94, P324E, P0A1A, and/or P3004

Service Category Engine/Hybrid System

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

Toyota Supports ASE Certification

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2012 - 2014	Prius V	
2010 - 2014	Prius	

REVISION NOTICE

January 31, 2019 Rev1:

- **The entire bulletin has been updated.**

Any previous printed versions of this bulletin should be discarded.

Introduction

Some 2010 – 2014 model year Prius and 2012 – 2014 model year Prius V vehicles may exhibit a MIL ON condition with Diagnostic Trouble Codes (DTCs) P0A94, P324E, P0A1A, and/or P3004, indicating a malfunction has occurred in the hybrid inverter assembly. To identify the specific components within the inverter assembly that need to be replaced, follow the Repair Procedure in this bulletin to address this condition.

Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
EL1602	R & R Inverter Assembly With Converter	2.0	G9200-#####	8A	73
EL1603	R & R IPM Transistor	2.9			
EL1604	R & R IPM Transistor and MG ECU	2.9			

APPLICABLE WARRANTY

- **This repair is covered under the Toyota Hybrid System 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.**
- **For California specification Prius vehicles sold, registered, and operated in California, Arizona (2012 model year only), Connecticut, Maine, Maryland (staring with 2011 model year) Massachusetts, New Jersey, New York, Oregon, Rhode Island, and Vermont, warranty is in effect for 180 months or 150,000 miles, whichever occurs first, from the vehicle's in-service date.**

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Parts Information

NOTE
- The parts listed below are NOT all required for HV inverter repair. This section is for reference ONLY.
- Order the correct part number by entering the VIN number into the Electronic Parts Catalog (EPC).

PART NUMBER*1	PART NAME	QTY
G9200-##### (Order by VIN)	Inverter Assy, W/Converter	1*2
G920H-##### (Order by VIN)	Computer Sub-Assy, MG Control W/Bracket	1*2
G920J-52010	Sensor Sub-Assy, Inverter Current	1*2
G9208-47090	Wire Sub-Assy, Inverter	1*2
04899-47021	Transistor Kit, Power Module Intelligent (IPM)	1*2
08826-00100	Seal Packing or Equivalent	1*2
00272-SLLC2	Super Long Life Coolant	1*3
04899-47060	Plug Kit, Inverter Drain	1*3
90430-18008	Gasket	1*3
G922L-47010	Cover, Inverter Signal Connector	1*4
91551-80618	Bolt, Flange	15*4
091X1-47020	Seal, Masking, No. 1	1*5
08887-02809	Toyota Thermal Grease X-23-7884-4	2*6

*1 Part numbers are subject to change. Order the correct part number by inputting the VIN in the EPC.
*2 Refer to step 3 in this Service Bulletin to determine if the part is required.
*3 Required for ANY Repair Procedure in this Service Bulletin.
*4 NOT required. Available in case of breakage.
*5 Included in IPM Kit. Available if spare is needed.
*6 Used ONLY for IPM replacement. Part has shelf life of 1 year. Do NOT use if stored past 1 year.

Required Tools & Equipment

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

*Essential SST.

NOTE
- Only ONE of the Techstream units listed above is required.
- Software version 13.30.018 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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Required Tools & Equipment (continued)

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
Oil Seal Puller*	09308-00010	1
Anti-Static Mat*	09890-47010-01	1
Squeegee*	09891-47010	1
Torque Wrench Adapter*	09961-00950	1
Inverter Case Separator*	09891-47020-01	1
Electrical Insulating Gloves*	01413-00072 (Medium)	1
	01413-00073 (Large)	
	01413-00074 (Extra Large)	

*Essential SST.

CAUTION

ALWAYS inspect electrical insulating gloves before use for cracks, ruptures, tears, pinholes, or damage. Do NOT wear if damaged.

NOTE

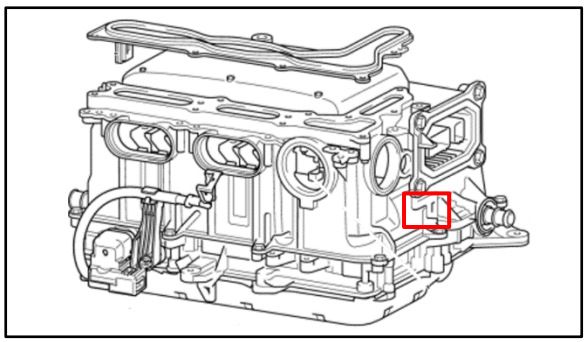
Additional SSTs may be ordered by calling 1-800-933-8335.

Repair Procedure

1. Confirm the condition exists.
   A. Is DTC P0A94, P324E, P0A1A, and/or P3004 stored?
      - **YES —** Continue to substep B.
      - **NO —** This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

   B. Does the vehicle exhibit physical damage to the inverter in the location shown?
      - **YES —** Continue to step 2.
      - **NO —** Go to step 3.

Figure 1.



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Repair Procedure (continued)

2. Replace the inverter assembly with converter.
   Refer to TIS, applicable model and model year Repair Manual:
   - 2010 Prius:
     Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid / Battery Control: Inverter With Converter: Removal / Installation"
   - 2011 Prius:
     Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid / Battery Control: Inverter With Converter: Removal / Installation"
   - 2012 Prius:
     Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid / Battery Control: Inverter With Converter: Removal / Installation"
   - 2013 Prius:
     Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid / Battery Control: Inverter With Converter: Removal / Installation"
   - 2014 Prius:
     Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid / Battery Control: Inverter With Converter: Removal / Installation"
   - 2012 Prius V:
     Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid / Battery Control: Inverter With Converter: Removal / Installation"
   - 2013 Prius V:
     Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid / Battery Control: Inverter With Converter: Removal / Installation"
   - 2014 Prius V:
     Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid/Battery Control: Inverter With Converter: Removal / Installation"

3. Determine the correct components to replace based on the inverter type, DTC, and information code.
   Refer to TIS, applicable model and model year Repair Manual:
   - 2010 / 2011 / 2012 / 2013 / 2014 Prius:
     Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid / Battery Control: Hybrid Control System: DTC Check / Clear"
   - 2012 / 2013 / 2014 Prius V:
     Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid / Battery Control: Hybrid Control System: DTC Check / Clear"

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Repair Procedure (continued)

4. Repair the inverter.

NOTE
- ALL repairs in this Service Bulletin require super long life coolant, an inverter drain plug kit, and a gasket.
- Toyota thermal grease is ONLY used for IPM replacement. This part has a shelf life of 1 year. Do NOT use if stored past 1 year.
- Reference the Quick Training Guide for best practices, *QTG014B: 2010 – 2014 Prius Inverter Repair Best Practices*.

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

- 2010 Prius:
  Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid / Battery Control: Power Module Intelligent Transistor: Removal / Installation"
- 2011 Prius:
  Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid / Battery Control: Power Module Intelligent Transistor: Removal / Installation"
- 2012 Prius:
  Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid / Battery Control: Power Module Intelligent Transistor: Removal / Installation"
- 2013 Prius:
  Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid / Battery Control: Power Module Intelligent Transistor: Removal / Installation"
- 2014 Prius:
  Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid / Battery Control: Power Module Intelligent Transistor: Removal / Installation"
- 2012 Prius V:
  Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid / Battery Control: Power Module Intelligent Transistor: Disassembly / Reassembly"
- 2013 Prius V:
  Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid / Battery Control: Power Module Intelligent Transistor: Disassembly / Reassembly"
- 2014 Prius V:
  Engine/Hybrid System – Hybrid/Battery Control System – "Hybrid / Battery Control: Power Module Intelligent Transistor: Disassembly / Reassembly"

5. Clear the DTCs and confirm the repair.