



**Technical Service  
BULLETIN**

July 11, 2006

Title:

**HYBRID VEHICLE PRECAUTIONS FOR  
INVERTER REMOVAL & INSTALLATION**

Models:

'01 – '06 Prius, '06 Highlander HV, &  
'07 Camry HV

PG002-06

PRODUCT GENERAL INFORMATION

**Introduction** This bulletin provides precautions for removal and installation of the inverter on hybrid vehicles.


**CAUTION:**

- Failure to follow these precautions may result in serious accidents, such as electrical leakage and shock.
- Special procedures should be followed during inverter installation to prevent damage to the new component.
- Care should be taken during removal of warrantable parts. Entry of foreign matter or moisture during removal may make it impossible to test the replaced component during part investigations.

**Applicable Vehicles**

- 2001 – 2006 model year **Prius** vehicles.
- 2006 model year **Highlander HV** vehicles.
- 2007 model year **Camry HV** vehicles.

**Required SSTs**

ITEM NO.	SPECIAL SERVICE TOOLS (SSTs)	PART NUMBER	QTY	DRW*
1	Safety Gloves 	00002-03100-S (Small) 00002-03200-M (Medium) 00002-03300-L (Large)	1 pair	9

\* Refers to drawer number in SST Storage System.

**NOTE:**

Additional SSTs may be ordered by calling SPX/OTC at 1-800-933-8335.

**Warranty Information**

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
N/A	Not Applicable to Warranty	-	-	-	-



**Precautions  
for Inverter  
Removal &  
Installation**

**Before Beginning Work:**

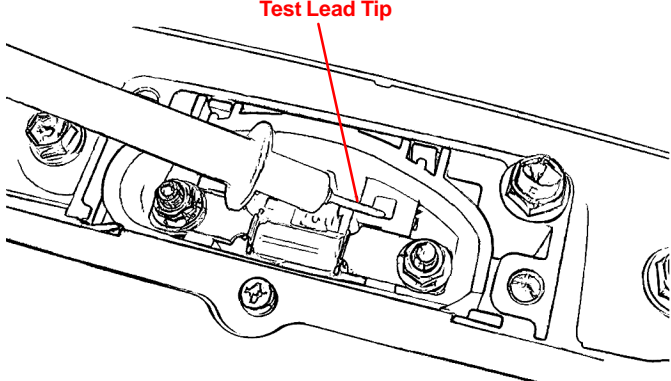
1. Turn the ignition OFF, and disconnect the negative (–) terminal of the auxiliary battery. Wear insulated safety gloves BEFORE touching any of the orange-colored wires or components of the high-voltage system.
2. Remove the service plug. Wait for the specified time BEFORE proceeding to the next procedure.

MODEL	WAIT TIME
Prius	5 minutes
Highlander HV	
Camry HV	10 minutes

**CAUTION:**  
Waiting for the specified time is **REQUIRED** to discharge the high-voltage capacitor inside the inverter.

3. After removing the service plug, put it in your pocket to prevent other technicians from accidentally replacing or reconnecting it.

**CAUTION FOR CAMRY HV:**  
When checking the inverter voltage, use a test lead with a tip that is a **MINIMUM** of 16 mm (0.63 in.) long. If the tip is too short, the test lead will **NOT** contact the conductor surface.



**NOTE:**

- After removing the service plug, do **NOT** “READY ON” the system unless instructed by the Repair Manual — This may cause a malfunction.
- When removing or installing the inverter, do **NOT** touch the terminals of the component connectors to prevent damage from static electricity.

**Precautions  
for Inverter  
Removal &  
Installation**  
(Continued)

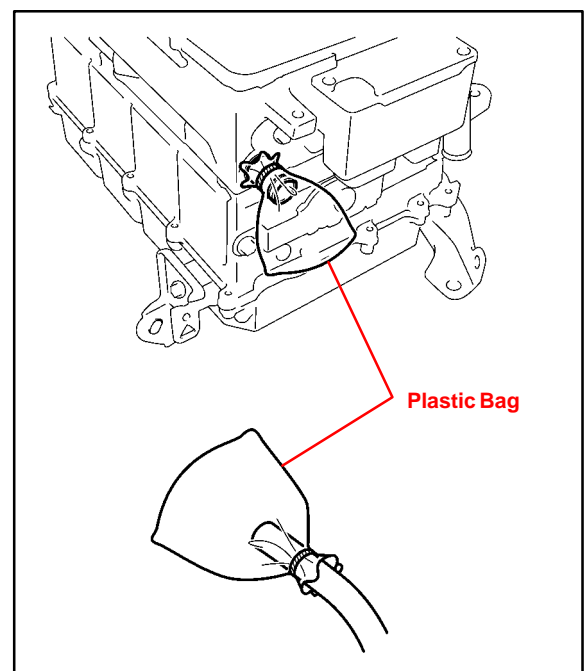
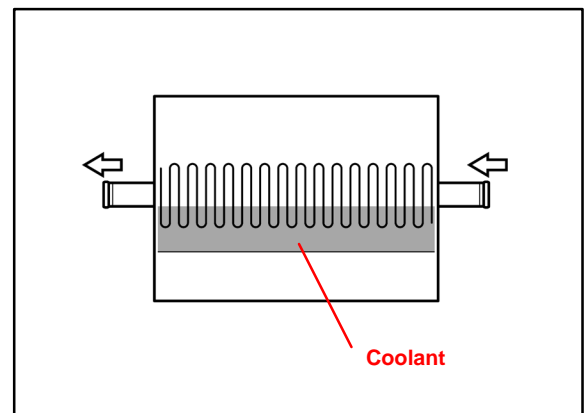
**Protecting Components During Work:**

1. Do NOT remove the reservoir cap when the engine or coolant is hot. Doing so may cause the coolant to overflow and spill onto parts close by.
2. Coolant has a corrosive effect. If coolant contacts the inverter, or any parts close to it, wipe off the coolant with a dry cloth.

**HINT:**

**Measuring the amount of coolant drained can help ensure the correct refill quantity.**

3. After disconnecting any high or low voltage connections, cover ALL inverter openings and electrical connectors with tape that will not leave adhesive residue. Once the internal connections are removed, temporarily install the inverter cover to prevent entry of any foreign matter or moisture.
4. To prevent damage to the inverter when removing it, do NOT hold the inverter by its connectors.
5. Due to its internal structure, some coolant will remain in the inverter after draining the cooling system. Before removing it from the vehicle, cover the inverter fittings AND rubber hoses to prevent any coolant from spilling out. If a suitable cap/plug is not available, use a plastic bag or the finger of a latex glove as shown.



**Precautions  
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(Continued)

6. When adding coolant, be careful NOT to overfill the reservoir. After adding the coolant, bleed the inverter cooling system.

Refer to the Technical Information System (TIS), applicable model and model year Repair Manual for proper bleeding procedure:

- 2001 – 2003 model year Prius: Hybrid Transaxle: Hybrid Transaxle Unit: On-Vehicle Repair
- 2004 – 2005 model year Prius: Hybrid Transaxle: Coolant: Replacement
- 2006 model year Prius: Hybrid Transmission / Transaxle: Coolant: Replacement
- 2006 model year Highlander HV: P310 Hybrid Transaxle: Coolant: Replacement
- 2007 model year Camry HV: P311 Hybrid Vehicle Control: Coolant (For Inverter): Replacement

**HINT:**

**Because not ALL of the coolant may be recovered when draining, make sure the amount of coolant added is at LEAST the same or more than the amount removed from the system.**

**After Completion of Work:**

1. Check that the high-voltage wiring is NOT in contact with other components. If it is, reinstall the harness in its proper location.
2. Check the area around the inverter for spilled coolant or traces of coolant. Clean any contaminated parts or wipe off the coolant with a dry cloth.
3. Perform a road test to ensure that NO DTCs are set and that there are NO coolant leaks. Check the coolant level in the reservoir tank. If coolant level is low, check for coolant leaks, add coolant, and then perform road test again.