

Service

Category Power Source/Network

Section Battery/Charging Market USA



# **Applicability**

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION	
2018 - 2019	ES300, ES300H, ES350, GS F, GS300, GS350, GX460, IS300, IS350, LC500, LC500H, LS500, LS500H, LX570, NX300, NX300H, RC F, RC300, RC350, RX350, RX450H		
2018	GS450H		

#### **REVISION NOTICE**

May 17, 2018 Rev1:

Applicability has been updated to include 2019 model year Lexus vehicles.

Any previous printed versions of this bulletin should be discarded.

#### Introduction

A battery in a stored vehicle is subject to conditions that can reduce its performance and life. These conditions include storage period, temperature, parasitic drain, and battery load. Because of these factors, battery inspection and maintenance are required to ensure proper operation and optimal battery life.

As a matter of policy, Toyota does not provide battery warranty coverage for discharged and/or failed batteries due to lack of maintenance. It is the dealer's responsibility to maintain the specified State-Of-Charge (SOC) of the vehicle's battery while in stock and ensure proper SOC at delivery.

To eliminate customer service concerns due to an undercharged battery during the first few weeks of ownership, ALL dealers should check battery SOC and recharge, if necessary, within 48 hours of delivery to customers.

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# **Battery Maintenance During PDS**

### **Warranty Information**

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
N/A	Not Applicable to Warranty	-	_	_	1

### **Required Tools & Equipment**

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
Digital Battery System Analyzer and Printer*	00002-V8150-KIT	1
GR8 Battery Diagnostic Station*	00002-MCGR8	'

### NOTE

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

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

<sup>\*</sup> Essential SST.

### NOTE

- Only ONE of the Techstream units listed above is required.
- Software version 13.00.022 or later is required.
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.

#### **Battery Inspection Procedure**

ALL vehicles MUST be inspected according to the procedures listed below using the digital battery system analyzer no more than 48 hours BEFORE customer vehicle delivery.

#### **IMPORTANT NOTE FOR HYBRID VEHICLES**

In hybrid vehicles, the digital battery system analyzer is to be used ONLY on the AUXILIARY (12 volt) battery.

1. Connect the test clamps to the battery. (If the analyzer does NOT power up automatically, press the Power button.)



# **Battery Maintenance During PDS**

### **Battery Inspection Procedure (continued)**

2. Select the correct user ID (if applicable) and press Next.

Enter the user PIN (if applicable) and press Next.

#### **NOTE**

For details on defining user ID or PIN, refer to the NVS-8150 Instruction Manual.

4. Press Next (if applicable) when the Hello screen appears to proceed to the Main Menu.

Figure 1.

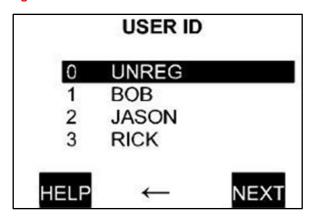


Figure 2.

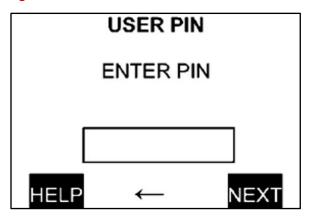
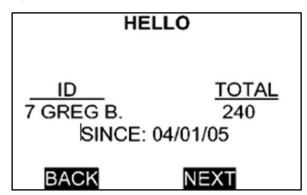


Figure 3.



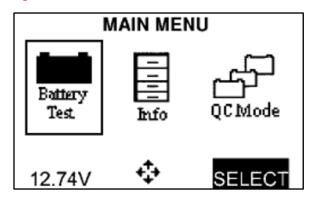


# **Battery Maintenance During PDS**

### **Battery Inspection Procedure (continued)**

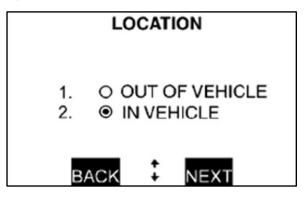
5. Choose Battery Test and press Select.

Figure 4.



6. Select In Vehicle and press Next.

Figure 5.

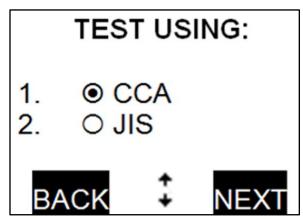


7. Select CCA and press Next.

# NOTE

The battery can be tested using either CCA or JIS. If JIS is selected, go to step 10.

Figure 6.



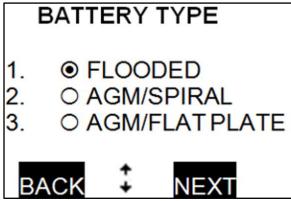


# **Battery Maintenance During PDS**

### **Battery Inspection Procedure (continued)**

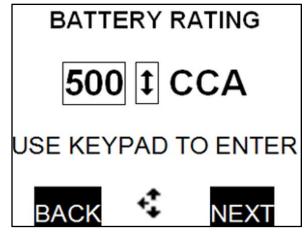
8. Select the appropriate battery type and press Next.

Figure 7.



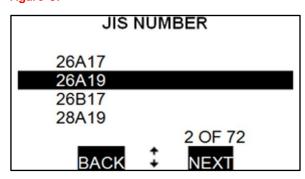
9. Enter the appropriate battery rating and press Next.

Figure 8.



10. Select JIS number and press Next.

Figure 9.





### **Battery Inspection Procedure (continued)**

11. Aim the infrared (IR) temperature measurement sensor at the negative (–) battery post and press Next.

The battery is now being tested.

The progress bar will fill in across the screen during testing.

12. Read or print the battery test results.

Figure 10.

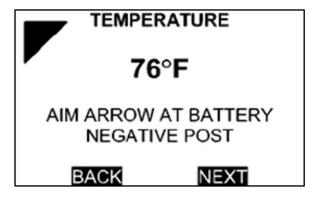


Figure 11.

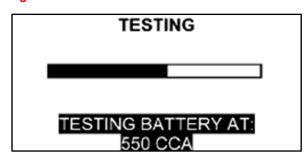
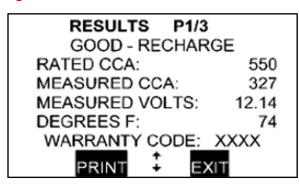


Figure 12.





#### **Battery Inspection Results**

Once the test completes, proceed with one of the procedures below according to the battery condition results.

Battery Condition: "GOOD BATTERY"

Return the battery to service.

• Battery Condition: "GOOD-RECHARGE"

Fully charge the battery using the GR8 Battery Diagnostic Station and return it to service.

Battery Condition: "CHARGE & RETEST"

Fully charge the battery using the GR8 Battery Diagnostic Station and retest.

#### **NOTE**

Failure to fully charge the battery before retesting may cause false readings.

Battery Condition: "REPLACE BATTERY"

Replace the battery.

#### NOTE

A Replace Battery result may also mean a poor connection between the battery cables and the battery. Retest the battery using the out-of-vehicle test before replacing it.

Battery Condition: "BAD CELL-REPLACE"

Replace the battery. This decision indicates a bad cell within the battery.

#### **CAUTION**

- If "FROZEN BATTERY" displays as the test result, allow the battery to reach a temperature of 40°F (4°C) BEFORE retesting.
- NEVER CHARGE A FROZEN BATTERY. GASES MAY FORM, CRACKING THE CASE AND CAUSING BATTERY ACID TO LEAK.

### **Battery Charging Procedure**

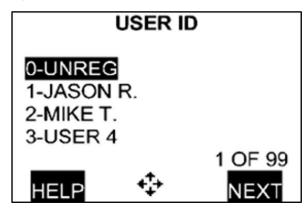
If the battery requires charging, follow the procedures below using the GR8 Battery Diagnostic Station.

- 1. Connect the charger cables to the positive (+) and negative (–) battery terminals.
- 2. Plug the charger into the 110V outlet and turn the switch to the ON position.

Rev1

3. Select the appropriate user ID (if applicable) and press Next.

Figure 13.



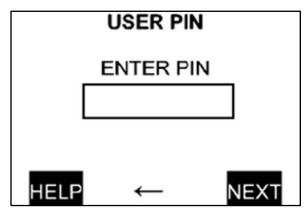
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4. Enter the user PIN (if applicable) and press Next.

#### NOTE

For details on defining user ID or PIN, refer to the GR8 Instruction Manual.

Figure 14.



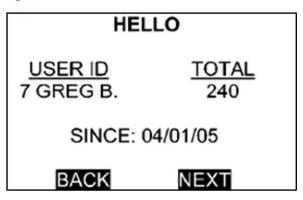


# **Battery Charging Procedure (continued)**

5. Press Next when the Hello screen appears to proceed to the Main Menu.

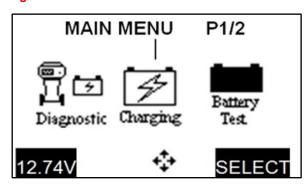
Rev1

Figure 15.



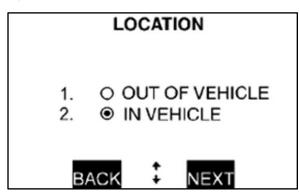
6. Select Diagnostic from the Main Menu screen and press Select.

Figure 16.



7. Select In Vehicle and press Next.

Figure 17.





# **Battery Maintenance During PDS**

### **Battery Charging Procedure (continued)**

8. Select CCA and press Next.

#### **NOTE**

The battery can be tested using either CCA or JIS. If JIS is selected, go to step 11.

9. Select the appropriate battery type and press Next.

10. Enter the appropriate battery rating and press Next.

Figure 18.

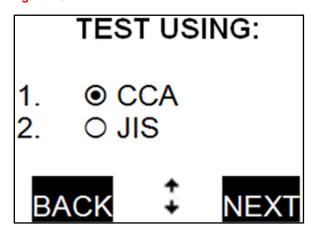


Figure 19.

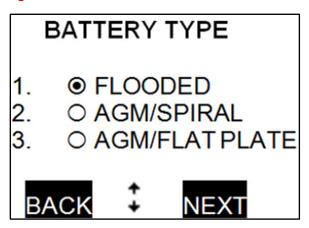
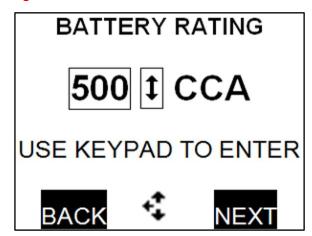


Figure 20.





# **Battery Charging Procedure (continued)**

11. Select JIS number and press Next.

The battery will be tested before charging occurs.

The progress bar fills in across the screen during testing.

Testing (continued).

Figure 21.

**January 31, 2017** 

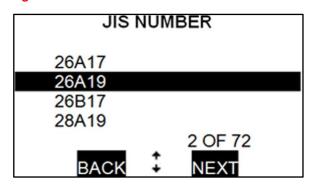


Figure 22.

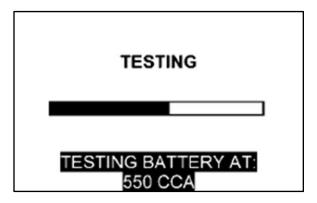
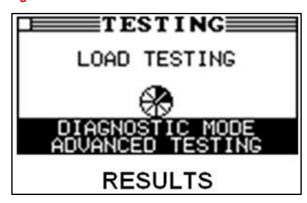


Figure 23.

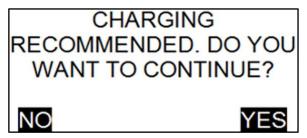


# **Battery Maintenance During PDS**

### **Battery Charging Procedure (continued)**

12. Charging recommended (Yes).





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Charging will begin now.

### **Battery Charging Results**

Once the test completes, proceed with one of the procedures below according to the battery condition results.

Battery Condition: "GOOD BATTERY"

Return the battery to service.

Battery Condition: "REPLACE BATTERY"

Replace the battery. Print the Results screen for warranty code by pressing Print.

#### **NOTE**

A Replace Battery result may also mean a poor connection between the battery cables and the battery. Retest the battery using the out-of-vehicle test BEFORE replacing it.

Battery Condition: "BAD CELL–REPLACE"

Replace the battery. This decision indicates a bad cell within the battery. Print the Results screen for warranty code by pressing Print.



#### **Battery Replacement Procedure**

If a vehicle battery needs to be replaced for a warrantable condition, complete a Warranty Battery Label, and affix it to the failed battery for proper warranty parts and claim processing. Include the Vehicle Identification Number (VIN) and warranty code on the Warranty Battery Label.

Figure 25.



#### **Recommended Battery Maintenance**

In addition to this NEW pre-delivery battery test, a monthly battery inspection is still required for stored vehicles. If your dealership is located in an area subject to extreme temperatures (hot or cold), periodic maintenance may need to be performed more frequently.

Refer to long-term storage guidelines.

To reduce parasitic battery drain on vehicles in storage for 1 week or more, the negative (–) battery cable should ALWAYS be disconnected to reduce battery discharge. When the negative (–) battery cable is reconnected, check and reset electrical components, such as the clock, radio, etc., and re-initialize ALL applicable systems/functions.

Refer to the appropriate model and year service bulletins for specific details.