

L-TCI- 3682

September 22, 2016



## Intermittent Battery Discharge

Service

Category Power Source/Network

Section Battery/Charging

Market Canada

### APPLICABILITY:

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2013 - 2014	ES350, GS350	
2014 - 2015	IS250, IS350	

### INTRODUCTION:

Some 2013 – 2015 model year Lexus ES, GS, and IS vehicles may exhibit an intermittent discharged battery occurring with no apparent source of discharge found. One possible cause may be the Network Gateway Computer not properly going into sleep mode at key OFF. This can result in excessive parasitic draw and a discharged battery condition. Follow the procedure in this bulletin to identify and address this condition.

### PRODUCTION CHANGE INFORMATION:

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

MODEL	DRIVETRAIN	EQUIPPED OPTIONS	PRODUCTION CHANGE EFFECTIVE VIN
ES350	2WD	Blind Spot Monitor or Clearance Warning Sonar	JTHBK1GG#E2149103
GS350	AWD	Blind Spot Monitor or Lane Departure Alert	JTHCE1BL#E5028690
GS350	2WD		JTHBE1BL#E5044369
IS250	2WD	Blind Spot Monitor or Clearance Warning Sonar	JTHBF1D2#F5048786
IS250	AWD		JTHCF1D2#F5017491
IS350	2WD		JTHBE1D2#F5015465
IS350	AWD		JTHCF1D2#F5006395



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### WARRANTY INFORMATION:

OP CODE	DESCRIPTION	TIME	OFFP	CLAIM TYPE	T1	T2
EL1602	R & R Network Gateway ECU	1.2	89111-##### 89100-#####	VE	87	74

### **APPLICABLE WARRANTY**

- This repair is covered under the Lexus Basic Warranty. This warranty is in effect for 48 months from the vehicle's warranty registration date or 80,000 kilometres, whichever occurs first.
- Warranty application is limited to occurrence of the specified condition described in this bulletin.

### PARTS INFORMATION:

MODEL	PART NUMBER		PART NAME	QTY
	PREVIOUS	NEW		
ES350	89111-33070	89111-33110	Computer, Network Gateway	1
GS350	89100-30180	89100-30181		
IS250, IS350	89100-30151	89100-30160		

### REQUIRED TOOLS & EQUIPMENT:

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
GR8 Battery Diagnostic Station*	GR8C P	1


### **NOTE**

Additional SSTs may be ordered by calling Bosch Automotive Service Solutions at 1-800-933-8335.

REQUIRED TOOLS & MATERIAL	QUANTITY
DVOM (Digital Volt Ohm Meter)	1

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### REQUIRED TOOLS & EQUIPMENT (CONTINUED)

ITEM NO.	REQUIRED EQUIPMENT	PART NUMBER	QTY
1	Techstream* or Techstream LITE NOTE: Software version 11.20.019 or later is required. 	-	1

\* Essential SST

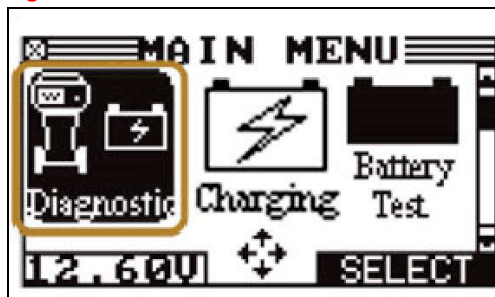
### NOTE

Additional Techstream or Techstream LITE units may be ordered by completing the order form on ETAS (*Tools > Tools and Equipment > Order Form*) and faxing it to (416) 431-8342.

### REPAIR PROCEDURE:

1. Load test the battery with the GR8 Battery Diagnostic Station.
  - A. Select Diagnostic from the Main Menu.

Figure 1.



### NOTE

- Repairs to correct a battery fail condition are NOT covered by this TSB.
- GR8 Battery Diagnostic Station must be used to test battery.
- Do NOT use Battery Test function on the Main Menu.

Did the battery pass the GR8 Diagnostic test?

- **YES** – Proceed to step 2.
- **NO – STOP!** Battery Test fail condition MUST be corrected before continuing with this bulletin.

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### CHARGING SYSTEM TEST:

2. Start the engine and maintain an engine speed of 2,000 RPM with all accessories OFF.

- A. Verify that the voltage and amperage are within specification:

**Standard amperage: 10 A or less\*\***

**Standard voltage: 13.2 to 14.8 V**

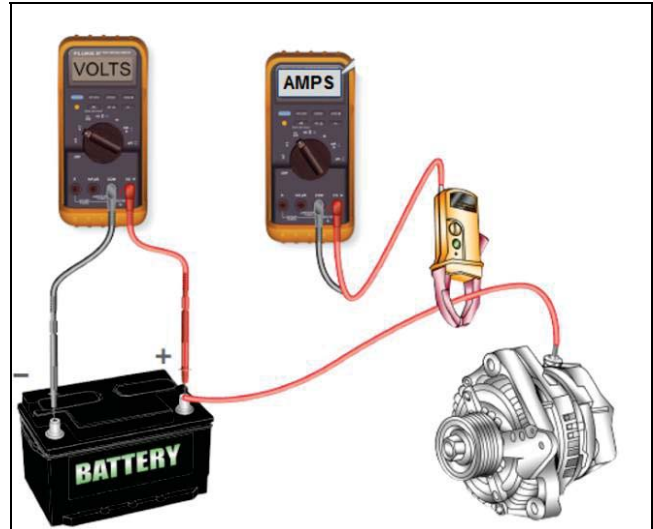
\*\* Battery must be fully charged.

- B. With the engine running at 2,000 RPM, turn the high beam headlights ON and turn the heater blower switch to the "HI" position. Verify that the voltage and amperage are within specification:

**Standard amperage: 30 A or more**

**Standard voltage: 13.2 to 14.8 V**

**Figure 2.**



Did the Charging System pass the Charging System Test?

- **YES** – Proceed to step 3.
- **NO – STOP!** Charging System fail condition must be corrected before continuing with this bulletin.

### **NOTE**

- Repairs to correct a Charging System Test fail condition are NOT covered by this TSB.
- Detailed information on testing the parasitic draw can be found in Infostream – Toyota University – F11-RL : Starting, Charging and Parasitic Draw Tests – Guide

### PARASITIC DRAW TEST

3. Loosen the negative (–) battery cable so it will be easy to remove for the test.

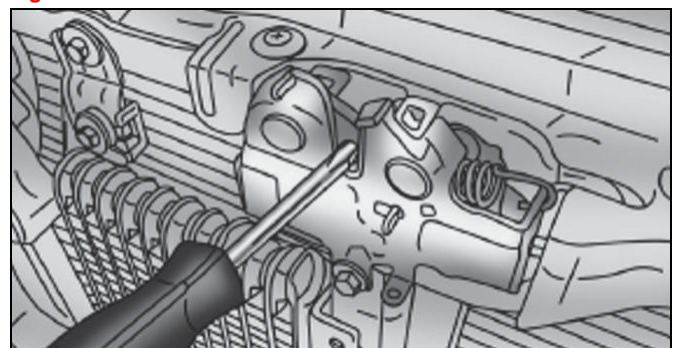
- A. Lock the hood latch using a screwdriver and roll the driver's window down.

### **NOTE**

**This closes the hood latch switch and enables the theft deterrent system in case it is the source of the parasitic draw.**

- B. Turn the ignition ON and then OFF.

**Figure 3.**



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### PARASITIC DRAW TEST (CONTINUED)

- C. Turn OFF all electrical loads, close and lock the doors, then wait for the ECUs to go into sleep mode. This may take anywhere from 10 minutes to 2 hours dependent upon which vehicle is being serviced and what equipment is installed in the vehicle.
- D. Attach the negative (-) lead of the ammeter to the negative (-) battery post and the positive lead of the ammeter to the negative (-) battery cable end.

#### **NOTE**

- Place leads without disconnecting the battery cable.
- If the ammeter leads become disconnected from the battery post or battery cable during the test, reconnect the battery and restart the test from step B.
- If the ammeter leads become disconnected from the battery post or battery cable during the test refer to the applicable repair instructions on ETAS / TIS library for initialization procedures necessary when the battery terminal is disconnected/ reconnected.
- Average milliamp setting should be used. Disregard Minimum and Maximum values for this test.

**Figure 4.**



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### PARASITIC DRAW TEST (CONTINUED)

- E. Remove the negative (–) battery cable without breaking the circuit between the battery and vehicle, and record the meter reading.

#### **NOTE**

- **After completing the parasitic draw test remove the screwdriver from the hood latch and operate the hood release lever**
- **Verify the hood latch is in the open position before attempting to close the hood.**

Figure 5.



#### **Standard average parasitic draw:**

Less than 50 milliamps average (0.050 amp)

Did the system (or vehicle) pass the Parasitic Draw Test?

- **YES** – Proceed to step 4.
- **NO** – Parasitic draw fail condition must be corrected before continuing with this bulletin.

#### **NOTE**

- **Repairs to correct a Parasitic Draw Test fail condition are NOT covered by this TSB.**
- **Detailed information on testing the parasitic draw can be found in Infostream – Toyota University – F11-RL : Starting, Charging and Parasitic Draw Tests – Guide.**



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### NETWORK GATEWAY ECU

4. Remove the Network Gateway ECU and check the part number.

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

- 2013/2014 ES350/GS350; 2014/2015 IS250/IS350:

*Power Source/Network – Networking – “Networking: Network Gateway ECU: Removal”*

Is the Network Gateway ECU part number the same as the Previous Part Number shown in the Parts Information section?

- **YES** – Proceed to step 5.
- **NO** – This bulletin does NOT apply. Reinstall network Gateway ECU and continue diagnosis using the applicable Repair Manual.

5. Install the NEW Network Gateway ECU.

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

- 2013/2014 ES350/GS350; 2014/2015 IS250/IS350:

*Power Source/Network - Networking – “Networking: Network Gateway ECU: Installation”*

6. Clear Diagnostic Trouble Codes.
7. Using TIS Techstream, perform a Health Check and confirm no current DTCs are present.

**NOTE**

**If current DTCs are present, diagnose per Repair Manual procedures.**

**NOTE:**

Issue of this Technical Service Bulletin is to ensure that proper repair information is available. IT DOES NOT CONSTITUTE AN AUTHORIZATION FOR REPAIR. Normal provisions of the formal warranty policy, as applicable, will apply.