

Classification:

EL15-025a

Reference:

ITB15-026a

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Date:

July 22, 2016

INFINITI; SIGNAL TECH-II INTELLIGENT KEY BATTERY TEST AND SIGNAL CHECK

This bulletin has been amended. Changes have been made throughout.
Please discard previous versions of this bulletin.

APPLIED VEHICLES: 2015 – 2016 Q50 (V37)
 2015 – 2016 Q50 Hybrid (V37)
 2015 – 2016 QX60 (L50)
 2015 – 2016 QX60 Hybrid (L50)

IF YOU CONFIRM

The Intelligent Key intermittently or continuously does not function.

ACTION

Check the battery condition with the Signal Tech-II "I-Key Battery Test".

IMPORTANT: Confirm that the Signal Tech-II has the most recent update. Update can be performed through **ASIST / Specialty Tools / Signal Tech-II**.

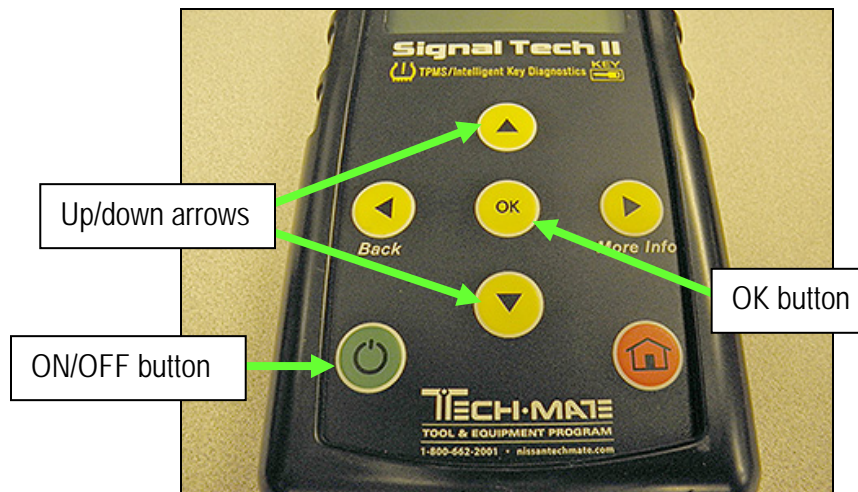


Figure A

Infiniti Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. NOTE: If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Infiniti retailer to determine if this applies to your vehicle.

SERVICE PROCEDURE

Intelligent Key Battery Condition Check

1. Turn ON the Signal Tech-II (see Figure A on page 1).

NOTE: This procedure will refer to the yellow up/down arrows and OK button on the Signal Tech-II key pad. Refer to Figure A on page 1 as needed.

2. Using the Signal Tech-II key pad; scroll to **Toolkit** with the yellow arrows and then press OK.

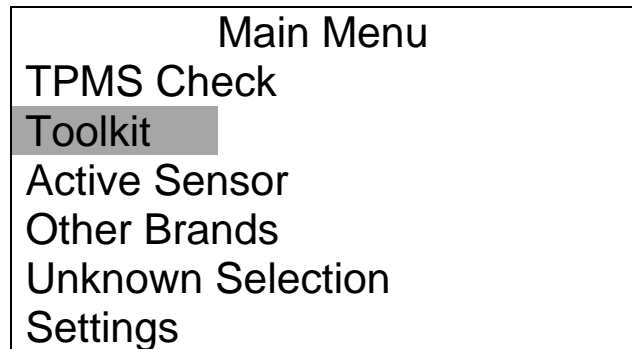


Figure 1

3. Scroll to **I-Key Battery Test**, and then press OK.

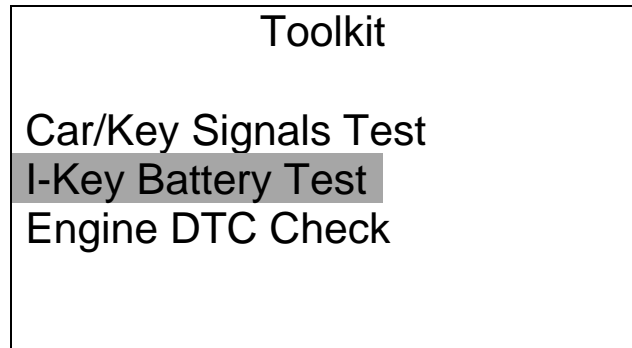


Figure 2

4. Scroll to (highlight) the model you are working on, and then press OK.

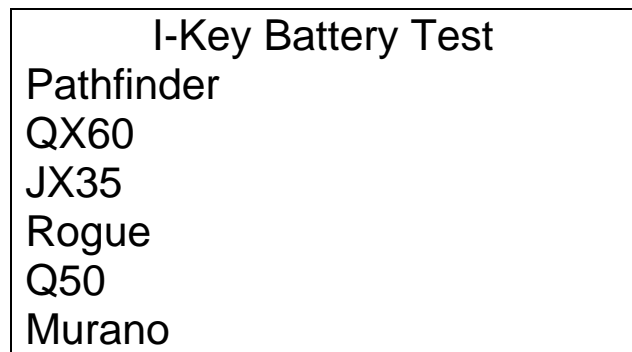


Figure 3

5. Select (highlight) model year range, and then press OK.

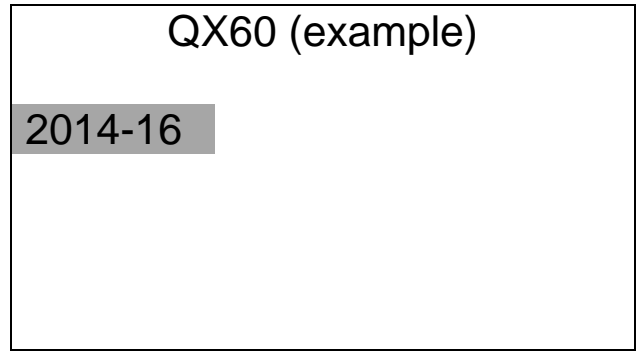


Figure 4

6. When Figure 5 is displayed, read the on-screen message and then press OK.

NOTE: On-screen instructions will aid in completing the Intelligent Key battery test.

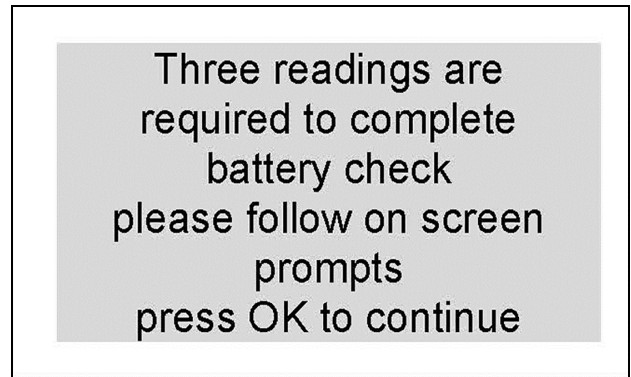


Figure 5

7. Press the Intelligent Key lock button 3 times:

1st press – wait one second

2nd press – wait one second

3rd press – wait one second

- A check mark will appear next to Read 1, 2, and 3 with each press of the lock button.

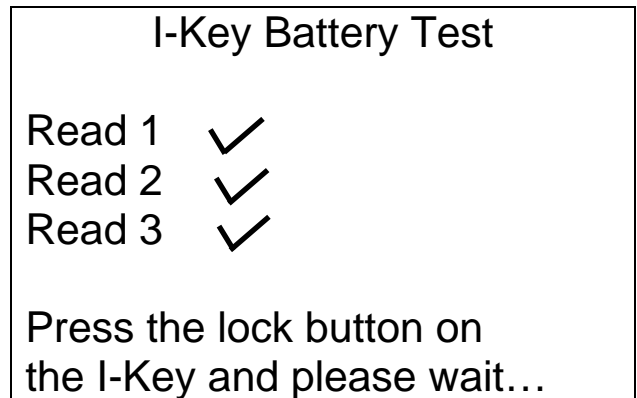


Figure 6

NOTE:

- In some rare cases the Intelligent Key battery may be too weak to transmit or the Intelligent Key may no longer function; check marks will not appear next to Read 1, 2, or 3.
- In this case, go to Manual Battery Voltage Test on page 5.

8. When step 7 is complete, the message in Figure 7 or Figure 8 will display.

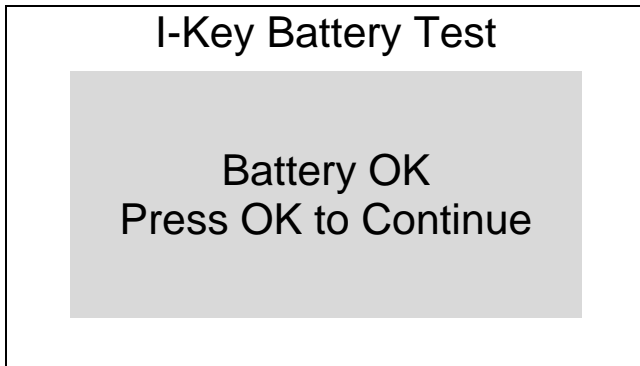


Figure 7

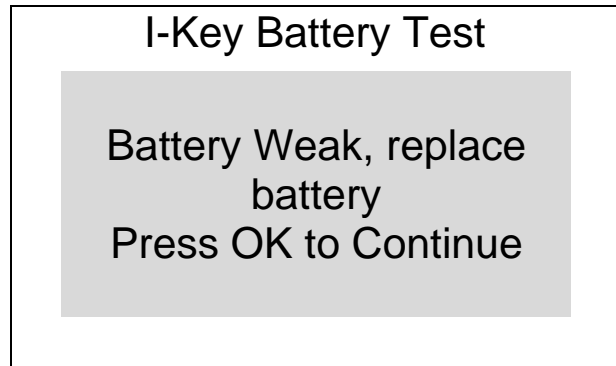


Figure 8

9. If the message displayed is:

- **Battery OK Press OK to Continue**
 - The battery is OK and does not need to be replaced.
 - Refer to the Electronic Service Manual (ESM), section **DLK – Door & Lock**, for further diagnosis.

- **Battery Weak, replace battery Press OK to Continue**
 - Replace the Intelligent Key battery.
 - Measure old battery's voltage with a DVOM and write the voltage on the repair order.
 - Perform steps 6 – 8 on pages 3 – 4 again.

Manual Battery Voltage Test

1. Remove the mechanical key from the Intelligent Key.
2. Place a piece of tape on the end of a small flathead screwdriver.
3. Gently insert the screwdriver into one of the slots shown in Figures 9 and 10.

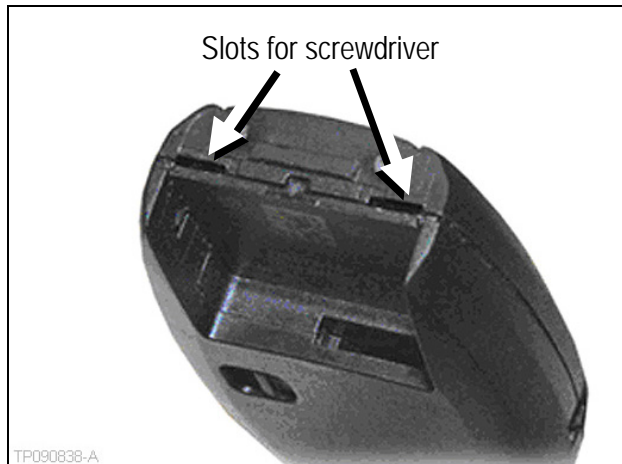


Figure 9



Figure 10

NOTE:

- Figures 9 and 10 show the proper location to insert a tool to open the Intelligent Key.
- **DO NOT** insert a tool into the notches on the side of the Intelligent Key (if equipped) to pry it open, as this may damage the printed circuit board.
- **DO NOT** use excessive force when opening the Intelligent Key, as this may result in damage to the internal components.



Figure 11

4. Gently rotate the screwdriver until the two cover pieces separate (Figures 12 and 13).

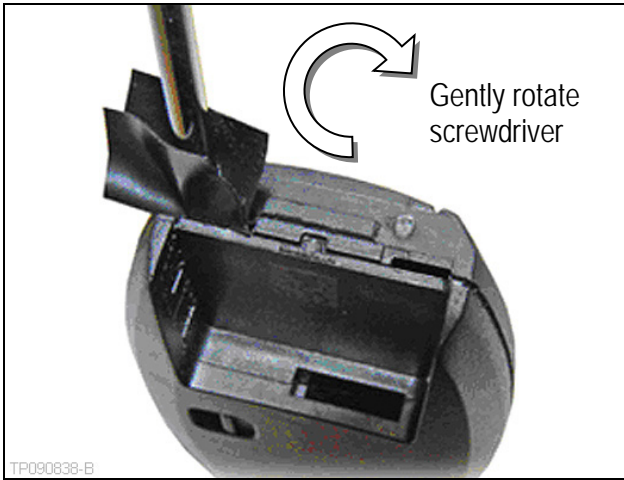


Figure 12

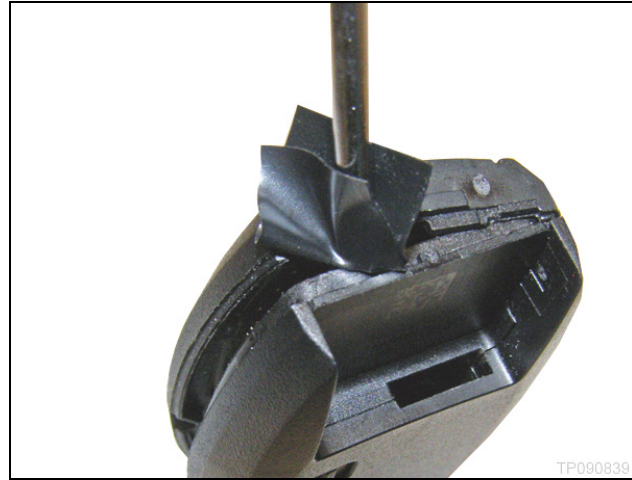


Figure 13

5. Remove the battery and check the voltage.

Two methods can be used:

Check voltage with resistor (load test)	Check voltage without resistor
<p>Refer to the Electronic Service Manual (ESM), section DLK–Door & Lock, for the battery voltage check procedure.</p> <ul style="list-style-type: none"> If battery voltage <u>is not within</u> the 2.5 – 3.0 range, replace battery. <p>NOTE: When inserting the new battery, make sure the + side of the battery faces the bottom cover piece.</p> <ul style="list-style-type: none"> If battery voltage <u>is within</u> the 2.5 – 3.0 range, refer to the ESM for further diagnostic information. 	<p>If a resistor is unavailable, use a volt/ohm meter (VOM) to check the battery voltage.</p> <ul style="list-style-type: none"> If the battery voltage is <u>2.7 or less</u>, replace the battery. <p>NOTE: When inserting the new battery, make sure the + side of the battery faces the bottom cover piece.</p> <ul style="list-style-type: none"> If the battery voltage is <u>more than 2.7</u>, refer to the ESM for further diagnostic information.

6. Reattach the two cover pieces by pushing them together.

7. Confirm all Intelligent Key functions operate correctly.

Intelligent Key Frequency Check

- The frequency of the Intelligent Key signal may be 315 MHz or 433/434 MHz.
- For diagnostic purposes, sometimes TECH LINE or other Nissan technical staff will ask for the frequency (315 MHz or 433/434 MHz) of an Intelligent Key you are working on.
- The following steps can be used to check the signal frequency.

1. Turn ON the Signal Tech-II.

2. Using the Signal Tech-II key pad; scroll to **Toolkit** with the yellow arrows and then press OK.

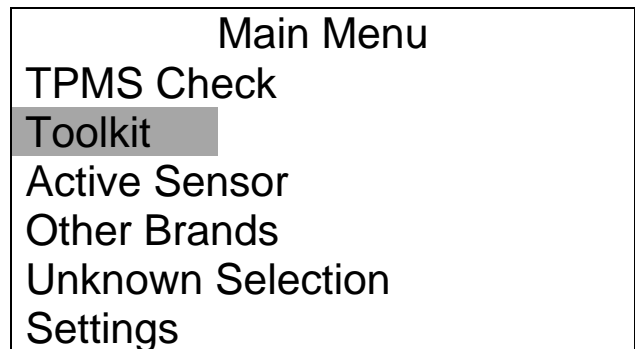


Figure 14

3. Scroll to **Car/Key Signals Test**, and then press OK.

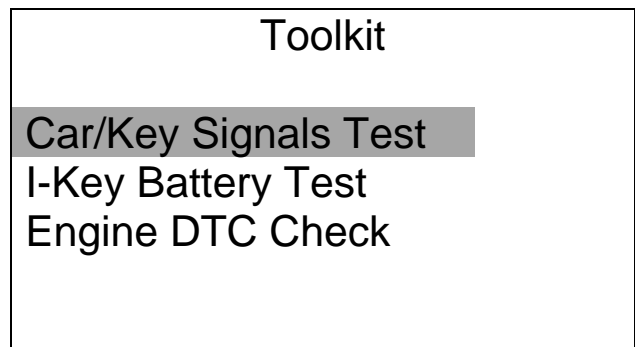


Figure 15

4. Hold the Intelligent key near the Signal Tech-II and press the Lock or Unlock button.
5. The signal strength and frequency (315 MHz or 433/434 MHz) will be displayed.



Figure 16

PARTS INFORMATION

Description	PART #	Quantity
Intelligent Key Battery	B8599-C2032	1
Intelligent Key	(1)	1

(1) Use the VIN and the electronic parts catalog (FAST or equivalent) to look up the part number for the vehicle you are working on.

CLAIMS INFORMATION

Submit a Primary Failed (PP) type line claim using the following claims coding:

OPERATION	PFP	OP CODE	SYM	DIAG	FRT
Perform I-Key Battery Test with Signal Tech-II	(2)	RX5CAA	ZE	32	0.2

(2) Reference the Parts Information Table and use the applicable Part Number as the Primary Failed Part.

