

**Classification:**

EL13-051

**Reference:**

ITB13-052

**Date:**

December 11, 2013

## INTELLIGENT KEY NOT DETECTED / ENGINE WILL NOT START

**APPLIED VEHICLES:** 2013 JX35 (L50)  
2014 QX60 (L50)  
2011 - 2013 QX56 (Z62)  
2014 QX80 (Z62)  
2011 - 2013 M37 / M56 (Y51)  
2012 - 2013 M35h Hybrid (HY51)  
2014 Q70 / Q70 Hybrid (H/Y51)

### SERVICE INFORMATION

Intelligent Key (I-Key) systems on the Applied Vehicles use two (2) different Radio Frequencies (RF) that are similar to other wireless devices; 315 MHz and 433 MHz.

In the event another wireless device (e.g. aftermarket alarm system) is transmitting at the same time as an I-Key, it can interfere with the I-Key signals being received by the BCM.

**If there is interference with I-Key signals, the following symptoms may occur:**

- The I-Key is not detected, causing:
  - The engine to **not** start (no response when the Stop/Start button is pressed)
  - "I-Key System Error" displayed in the instrument cluster
  - "No I-Key Detected" displayed in the instrument cluster
- Intermittent operation of the buttons on the remote (Key FOB).
- Intermittent operation of the door request switches.

The above symptoms are usually intermittent and can be difficult to diagnose.

If a vehicle has experienced the above symptoms, or a customer has reported the above symptoms, refer to **Supplemental Diagnosis / Information** on the next page.

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 dealer to determine if this applies to your vehicle.

## NOTE:

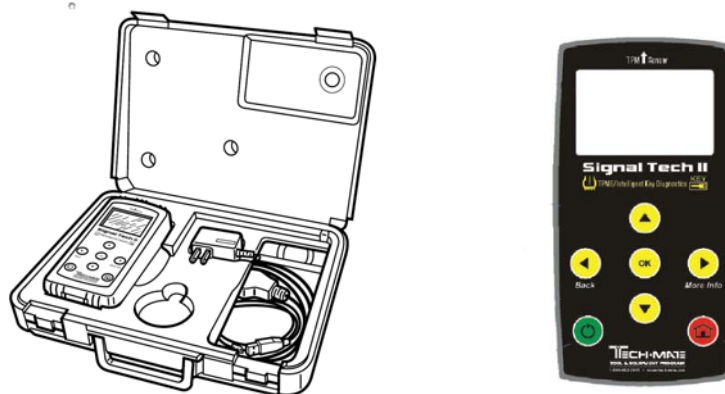
- The diagnostic items listed below should be checked before replacing any parts or performing any repairs.
- Refer to the appropriate Service Manual for complete I-Key system diagnosis and repair information.

## Supplemental Diagnosis / Information

- I-Key fob battery check:
  - Refer to the appropriate Service Manual (DLK section) for proper battery voltage testing procedure.
  - Standard voltage range is 2.5 to 3.0 V.
  - It is recommended that a battery testing 2.8 volts or less be replaced.
- Location of I-Key: An I-Key should **not** be stored where the RF signal can be obstructed by nearby metal objects.
- Interference from other personal devices: Confirm the I-Key is not placed in close proximity to phones, other I-Keys, highway PASS Card, etc. that may be transmitting similar RF signals.
- If none of the above are causing symptoms, check the following:
  - Inspect the vehicle for the presence of an aftermarket alarm system or radar detector.

**NOTE:** RF signals coming from the vehicle surroundings can interfere with the I-Key signals (e.g. radar detectors or aftermarket alarm systems in other vehicles, or RF signals from surrounding buildings).

- Use Signal Tech II to check for interfering signals. See **Interference Check** on the next page.



Signal Tech-II

## Interference Check

Signal Tech-II will detect the presence of RF signals that may be interfering with I-Key signals.

1. Place the Signal Tech-II inside the vehicle.
2. Set the ignition to "Key ON Engine OFF" (KOEO).
3. Get all of the vehicle's I-Keys out of range of the vehicle (place them at least 25 feet away from the vehicle).
4. With Signal Tech-II, select **Key Test**, and then select **OK**.



Figure 1

5. Observe the bar graph for **Key**.
  - Ignore the bar graph for **Car**.
  - If a signal is detected in the **Key** bar graph, this may indicate an interference issue. In this case, the source of the interference must be isolated / eliminated.

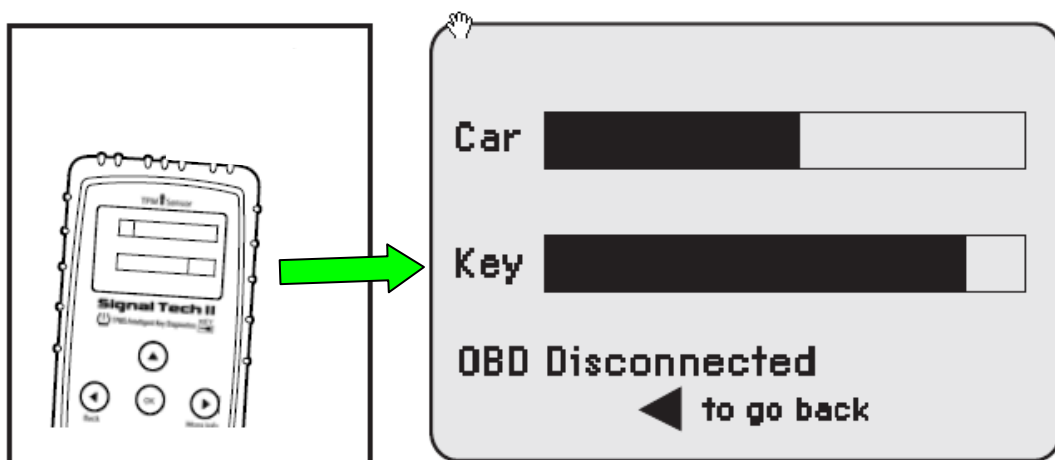


Figure 2