

TECHNICAL SERVICE BULLETIN

Classification:	Reference:	Date:
KS13-050F	NTB13-107F	April 27, 2023

VEHICLE KEY NOT DETECTED / AUTHENTICATED, ENGINE WILL NOT START

This bulletin has been amended. See AMENDMENT HISTORY on the last page.

Please discard previous versions of this bulletin.

APPLIED VEHICLES: All Nissan vehicles equipped with Intelligent Key

OR Nissan Anti-Theft System (NATS) key

SERVICE INFORMATION

APPLIED VEHICLES use Radio Frequencies (RF) that are similar to other wireless devices.

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

If there is interference with <u>Intelligent Key</u> signals, the following symptoms may occur:

- The Intelligent Key is not detected, causing:
 - The engine to **not** start (no response when the Stop/Start button is pressed)
 - "Incorrect Key ID" displayed in the instrument cluster
 - o "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.

If there is interference with <u>NATS Key</u> signals, the following symptoms may occur:

- The NATS key is not detected, causing:
 - o The engine to **not** start (no response when the key is turned)
 - o Illumination of the Immobilizer warning light (Figure 2 on page 2)
 - DTCs B2191 (Difference of key) to be stored in the BCM, and P1615 (Difference of key) to be stored in the ECM

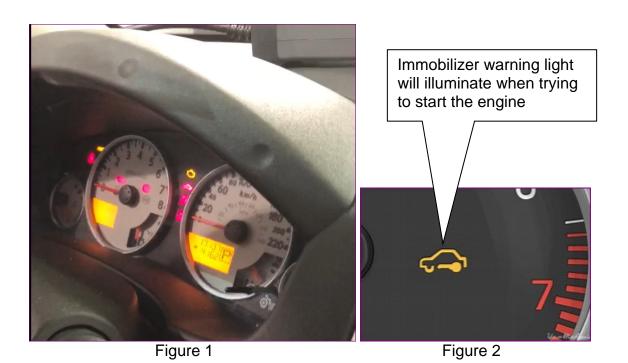
The above symptoms are usually intermittent and can be difficult to diagnose.

If a vehicle has experienced the above symptoms, or a customer has reported the above symptoms, refer to the **Supplemental Diagnosis / Information** sections beginning on page 3.

Nissan 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 Nissan dealer to determine if this applies to your vehicle.

HINT:

- If the Immobilizer warning light (Figure 2) remains illuminated during attempts to start the engine, this could indicate that the key was not authenticated properly.
- The supplemental diagnostic items listed on the next page should be checked before replacing any parts or performing any repairs.
- Refer to the appropriate Electronic Service Manual (ESM) for complete key system diagnosis and repair information.



Supplemental Diagnosis / Information for Both Key Types

- If an RFID (Radio Frequency Identification) token (Figure 3) is placed within close proximity to the vehicle key, it can interfere with the RF signals, resulting in an inability to authenticate the key and cause a no start concern.
 - Other contributors are:
 - Keys with a similar transponder frequency
 - Multiple keys on one keyring
- Remove all aftermarket devices from the vehicle, including all other keys, while diagnosing a no start concern.

Supplemental Diagnosis / Information for Vehicles Equipped with Intelligent Key

- Intelligent Key fob battery check:
 - Use the Signal Tech II IKEY Battery Test to confirm the battery state of charge.
- Location of Intelligent Key:
 - An Intelligent Key should **not** be stored where the RF signal can be obstructed by nearby metal objects. This includes purses/back packs with RFID blocking material, which could prevent proper Intelligent Key operation by obstructing the RF signal.
- Interference from other personal devices:
 - Confirm the Intelligent Key is not placed in close proximity to phones, other Intelligent Keys, highway PASS Card, USB charger, Personal Computer (PC) charger, etc. that may be transmitting similar RF signals.

Supplemental Diagnosis / Information for Vehicles Equipped with ${\underline{\sf NATS}}$ Key

- NATS keys also contain a transponder that can be affected by interference.
- For interference to cause a no start condition, the source of the interference will typically be in close proximity to the key; for example, an RFID chip on a key chain with the key (Figure 3).



Figure 3

- If the conditions on the previous page are not the cause of the symptoms, check for the presence of an aftermarket alarm system, radar detector, or <u>ANY</u> electronic devices, including other keys.
- RF signals coming from the vehicle <u>surroundings</u> can interfere with the key signals, such as radar detectors or aftermarket alarm systems in other vehicles or surrounding buildings.
- If you are unable to duplicate the concern, it is important to determine <u>WHERE</u> the vehicle was located when the customer experienced the no start concern.

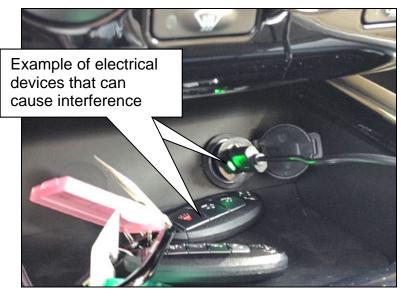


Figure 4

AMENDMENT HISTORY

PUBLISHED DATE	REFERENCE	DESCRIPTION
December 11, 2013	NTB13-107	Original bulletin published
November 29, 2016	NTB13-107A	Updated Applied Vehicles and made changes in the body of the bulletin
March 26, 2018	NTB13-107B	Updated Applied Vehicles
October 15, 2019	NTB13-107C	Updated Applied Vehicles and made changes in the body of the bulletin
March 12, 2021	NTB13-107D	Classification number updated
February 22, 2022	NTB13-107E	Publication date updated to include the latest models and model years
April 27, 2023	NTB13-107F	Publication date updated to include the latest models and model years, and Supplemental Diagnosis / Information for Vehicles Equipped with Intelligent Key revised