

# DTC B3055 No Transponder Modulation or No Transponder

## Diagnostic Instructions

- Perform the Diagnostic System Check – Vehicle prior to using this diagnostic procedure.
- Review Strategy Based Diagnosis for an overview of the diagnostic approach.
- Diagnostic Procedure Instructions provides an overview of each diagnostic category.

## DTC Descriptor

**DTC B3055 00:** No Transponder Modulation or No Transponder

## Circuit/System Description

When an ignition key is inserted into the ignition lock cylinder and the ignition is switched ON, the transponder embedded in the head of the key is energized by the exciter coils surrounding the ignition lock cylinder. The energized transponder transmits a signal that contains its unique value, which is received by the theft deterrent module (TDM). The TDM then compares this value to a value stored in memory. This stored value is the learned key code. If the value is correct, the TDM will send the prerelease password via the serial data circuit to the engine control module (ECM). If the learned key code does not match or a transponder value is not received, the TDM will send the start disable password to the ECM.

## Conditions for Running the DTC

Ignition is in the Accessory or Run position.

## Conditions for Setting the DTC

The TDM is unable to measure the ignition key transponder value.

## Action Taken When the DTC Sets

- Vehicle starting will be disabled.
- The security indicator will be illuminated.

## Conditions for Clearing the DTC

- A current DTC will be cleared when the TDM detects a valid transponder value from the ignition key.
- A history DTC will be cleared after 100 malfunction-free ignition cycles or when a scan tool is used to clear DTCs.

## Reference Information

### Schematic Reference

Immobilizer Schematics

### Connector End View Reference

Component Connector End Views

### Description and Operation

Immobilizer Description and Operation

### Electrical Information Reference

- Circuit Testing
- Connector Repairs
- Testing for Intermittent Conditions and Poor Connections
- Wiring Repairs

### Scan Tool Reference

Control Module References for scan tool information

## Circuit/System Verification

**Important:** When using this diagnostic, more than one vehicle key is required to ensure proper diagnosis. If more than one key is not available at the time of service, contact the customer and ask if any other keys can be provided for service. If unavailable, a new second key can be created.

- 1). Inspect all available vehicle keys that they are correct vehicle keys. If not a correct vehicle key, replace the key.
- 2). While viewing the scan tool TDM Transponder Key parameter, turn ON the ignition with each of the available vehicle keys. The parameter should read Present with all available keys. If only one key results in the parameter reading Not Present, replace the appropriate key. If all available keys result in the parameter reading Not Present, replace the TDM.

## Repair Instructions

Perform the Diagnostic Repair Verification after completing the diagnostic procedure.

- Replacing Keys (North America except Canada) or Replacing Keys (Canada)
- Control Module References for TDM replacement, setup, and programming

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