

## **ALLDATA Diagnostic Bulletin**

### **P0513: Invalid SKIM Key**

**Related Vehicles:** 2003 - 2004 Dakota, 2003 - 2004 Ram 1500/2500/3500

#### **Notes/Hints:**

- This DTC sets when the PCM detects an invalid SKIM key.
- This DTC can be set if the SKIM harness connector was disconnected, or if the SKIM and/or PCM was replaced recently.
- If this DTC cannot be reset, it could have been an actual theft attempt.
- Intermittent issues are very common and are most often caused by wiring and or connector problems such as corrosion.
- Many technicians have reported trouble with aftermarket parts, and incorrect part numbers. Always verify any replacement part meets OEM specifications.
- All keys that the customer uses for this vehicle must be tested to verify they are operating properly.
- An external Radio-Frequency Identification (RFID) key (and/or pass/radio key), such as one used to gain access to a 24 hour gym, can cause this DTC to set and create a no start condition.

#### **Preliminary Tasks:**

- Check for any applicable TSBs.
- Review available vehicle history.
- Check any fuses/relays applicable to the circuit you are working on.
- Follow all manufacturer warnings and cautions.
- Read and record any related freeze frame data.
- Inspect the vehicle for any aftermarket accessories that may be installed incorrectly.
- Verify the DTC status is Active, and/or the Good Trip Counter is not equal to zero.
- Inspect the Powertrain Control Module (PCM) and the harness/connectors to it for damage.
- Inspect the customer's key chain for any type of RFID key.

#### **Diagnosis:**

1. Key on, engine off (KOEO). With a scan tool, attempt to communicate with the SKIM. Is communication possible?  
--> If yes, proceed to step #2.  
--> If no, diagnose and repair the communication fault, and perform the SKIS Verification Test.

2. Using a scan tool, verify the correct VIN is programmed into the Powertrain Control Module (PCM). Was the correct VIN present?

--> If yes, proceed to step #3.

--> If no, program the correct VIN into the PCM. If unable to program the VIN into the PCM, replace the PCM. After repairs, perform the SKIS Verification Test.

3. Turn ignition off. Replace and program the Sentry Key Immobilizer Module (SKIM). Using a scan tool, erase all SKIM and PCM DTCs. Attempt to start and idle the engine. With the scan tool, read the PCM DTCs - did P0513 reset?

--> If yes, replace the PCM, and perform the SKIS Verification Test.

--> If no, test complete.

## Mileage

None Indicated

## Symptoms

MIL/Warning  
Indicator Lamp On

## Test Performed

None Indicated

## Systems

Computers and  
Control Systems

## DTC Codes

P0513

## Keywords

None Indicated

Comment(0)

# 4 Repair(s) Available

## Verified Repairs(2)

TECH-ASSIST  
02/15/2019 |  
13:07:08

SKIM Key

If this repair worked for you, please "Verify" it.

If this repair did not work for you please add your repair.

Your participation helps everyone in the ALLDATA Community.

Comment(2)

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A 2003 Dodge or Ram Truck Dakota 4WD V8-4.7L VIN N set code P0513 and failed to crank. The starter relay failed to energize and the security light remained ON. A new key was sourced and programmed to the SKIM and restored normal vehicle operation; issue resolved.	TECH-ASSIST 02/15/2019   13:09:05
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2011 Dakota 3.7L with a No Crank issue and P0513 active.  A freshly cut and programmed key fixed this one as well.	Jeff Campbell 09/24/2020   09:27:11
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<b>Suggested Repair</b>	Justin Stavroulakis- 07/06/2017   10:19:15
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Sentry Key Immobilizer Module (SKIM)

Comment(0)

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<b>Suggested Repair</b>	Justin Stavroulakis- 07/06/2017   10:19:05
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Wiring and/or Connectors

Comment(0)

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<b>Suggested Repair</b>	Justin Stavroulakis- 07/06/2017   10:18:58
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Powertrain Control Module (PCM)

Comment(0)