P282A: PRESSURE CONTROL SOLENOID K STUCK ON

OVERVIEW

Severity	:	Medium
DIY Difficulty Level	:	Advanced
Repair Cost	:	**$50-$2000**
Can I Still Drive?	:	No

What Does The P282A Code Mean?

When the P282A OBD-II trouble code is set, the Powertrain Control Module (PCM) has detected a problem with the Transmission Pressure Control Solenoid “K”. Most automatic transmissions incorporate at least three solenoids that are solenoid A, B and C.

However, for this DTC, the transmission contains even more. The trouble codes related to the “K” solenoid are codes P2828, P2829, P282A, P282B, and P282C. The code set is based on the specific malfunction that alerts the PCM and illuminates the Check Engine Light.

The purpose of the Transmission Pressure Control Solenoids is to control the pressure of the fluid for the proper operation of an automatic transmission. The PCM receives an electronic signal based on the pressure within the solenoids.

An automatic transmission is controlled by bands and clutches that change gears by having fluid pressure in the right place at the right time. Based on the signals from associated devices monitoring the speed of the vehicle, the PCM controls the pressure solenoids to direct fluid at the appropriate pressure to various hydraulic circuits that change the transmission gear ratio at the correct time.

The code P282A is set by the PCM when the Pressure Control Solenoid “K” is stuck in the “On” position.

What Are The Symptoms Of The P282A Code?

Symptoms of a P282A trouble code may include:

- Vehicle enters limp mode
- Transmission slips when shifting
- Transmission overheating
- Transmission catches in gear
- Decreased fuel economy
- Possibly misfire-like symptoms
- Check Engine Light illuminated

What Are The Potential Causes Of The P282A Code?

Causes for this P282A transmission code may include:

- Defective Pressure Control Solenoid
- Dirty or contaminated fluid
- Dirty or clogged transmission filter
- Defective Transmission Pump
- Defective Transmission Valve Body
- Restricted hydraulic passages
- Corroded or damaged connector
- Faulty or damaged wiring
- Faulty PCM

How Can You Fix The P282A Code?

Prior to beginning the troubleshooting process for any malfunction you should research the Technical Service Bulletins (TSB's) for the specific vehicle by year, model and transmission. In some circumstances this can save a lot of time in the long run by pointing you in the right direction. You should also check the vehicle records to verify the last time that the filter and fluid was changed if possible.

Fluid & Wiring Inspections

The first step is to check the fluid level and examine the condition of the fluid for contamination. Prior to changing the fluid, you should check the vehicle records to verify the last time that the filter and fluid was changed.

A detailed visual inspection to check the condition of the wiring for obvious defects is next. Check the connectors and connections for security, corrosion and damaged pins. This should include all wiring and connectors to the transmission pressure control solenoids, the transmission pump and

the PCM. Depending on the configuration, the transmission pump may be electrically driven or mechanical driven.

Advanced Steps

The advanced steps always become very vehicle specific and require the appropriate advanced equipment to perform accurately. These procedures require a digital multi meter and the specific technical references for the vehicle. You should obtain the specific troubleshooting guidelines for your vehicle prior to proceeding with the advanced steps. Voltage requirements may very based on the specific model of the vehicle. Fluid pressure requirements will also vary based on the transmission design and configuration.

Continuity Checks

Unless otherwise specified by the technical data, the normal readings for wiring and connections should be 0 ohms of resistance. Continuity checks should always be performed with the power removed from the circuit to avoid shorting the circuit and creating more damage. Resistance or no continuity is an indication of faulty wiring that is open or shorted and must be repaired or replaced.

Severity Description

The severity of this code normally starts as moderate, but it can progress to a more severe level rapidly when not corrected in a timely manner.

Reference Sources

P282A Pressure Control Solenoid K Stuck On, OBD-Codes.