P2813: PRESSURE CONTROL SOLENOID G CONTROL CIRCUIT RANGE/PERFORMANCE

OVERVIEW

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

What Does The P2813 Code Mean?

In most circumstances automatic transmissions will incorporate at least three pressure control solenoids know as solenoid A, B and C. Newer transmissions tend to have more gears and more solenoids, giving you solenoids D, E, F, etc. Various trouble codes are associated to the “G” solenoid control circuit and some of the most common include P2812, P2813, P2814, and P2815. When the P2813 OBD-II trouble code is set, the Powertrain Control Module (PCM) has detected a problem with the transmission pressure control solenoid “G” control circuit. The specific code set is based on the specific malfunction that is detected by the PCM.

An automatic transmission is controlled by bands and clutches that change gears by having fluid pressure in the right place at the right time. The purpose of the transmission pressure control solenoids is to adjust the pressure of the fluid for the automatic transmission to operate properly and shift smoothly. The PCM monitors the pressure within the solenoids and directs fluid to various hydraulic circuits that change the transmission gear ratio precisely as needed.

Code P2813 is set by the PCM when it detects that the “G” pressure control solenoid control circuit is out of normal range for optimum performance.

What Are The Symptoms Of The P2813 Code?

Symptoms of a P2813 trouble code may include:

- Increased fuel consumption
- Check Engine Light activated
- Transmission overheats
- Transmission slips when shifting
- Transmission shifts hard (banging into gear)
- Possibly misfire-like symptoms
- The transmission is put into limp mode by the PCM

What Are The Potential Causes Of The P2813 Code?

Causes for this P2813 transmission code may include:

- Defective pressure control solenoid
- Contaminated transmission fluid
- Restricted transmission filter
- Defective transmission pump
- Defective transmission valve body
- Blocked hydraulic passages
- Corroded or damaged connector
- Faulty or damaged wiring
- Faulty PCM

How Can You Fix The P2813 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 situations this can save a lot of time in the long run by pointing you in the right direction.

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 (if possible) 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. Based on the specific configuration, the transmission pump may be driven electrically or mechanically.

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 always obtain the specific troubleshooting data for your vehicle prior to proceeding with the advanced steps. Voltage requirements will vary based on the specific model of the vehicle. Fluid pressure requirements may 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 begins as moderate, but it can progress to a more severe level rapidly when not corrected in a timely manner. In circumstances that result in the transmission banging into gear permanent internal damage can be caused making the problem a severe issue.

Reference Sources

P2813 Pressure Control Solenoid G Control Circuit Range/Performance, OBD-Codes.