

P2176: THROTTLE ACTUATOR CONTROL SYSTEM - IDLE POSITION NOT LEARNED

OVERVIEW

Severity	:	<div><div>Medium</div></div>
DIY Difficulty Level	:	<div><div>Intermediate</div></div>
Repair Cost	:	\$150-\$800
Can I Still Drive?	:	Yes (Short-term only)

What Does The P2176 Code Mean?

The P2176 OBD-II trouble code is one of number of possible codes that indicates that the Powertrain Control Module (PCM) has detected a malfunction and is limiting the operation of the Throttle Actuator Control System

This situation is known as activating a fail-safe or limp mode to prevent the engine from accelerating until this malfunction is corrected and the associated code is cleared. The PCM sets these when other codes are present that indicate an issue that may be safety related or cause damage to the engine or drivetrain components if not corrected in a timely manner.

Code P2176 is set by the PCM in the situation where the idle position is not learned within the throttle actuator control system.

The Throttle Actuator Control System is duty cycle controlled by the PCM and the function of the system is limited when other fault codes are detected.

What Are The Symptoms Of The P2176 Code?

Symptoms of a P2176 trouble code may include:

- Engine will not start

- Little or no throttle response
- Check Engine Light illuminated
- ABS Light illuminated
- Automatic transmission will not shift
- Additional codes are present

What Are The Potential Causes Of The P2176 Code?

- Replacing or cleaning throttle control motor
- Cleaning corrosion from connectors
- Repairing or replacing wiring
- Flashing or replacing PCM

How Can You Fix The P2176 Code?

Step 1

The first step in the troubleshooting process for any malfunction is to research the Technical Service Bulletins (TSB's) for the specific vehicle by year, model and power plant. In some circumstances this can save a lot of time in the long run by pointing you in the right direction.

Step 2

The second step for this code is to complete a PCM scan to identify other trouble codes. This code is an informational code and in most circumstances this code's function is to alert a driver that the PCM has initiated a fail-safe mode because of a malfunction or failure in a system that is not directly related to the Throttle Control Actuator.

If other codes are identified you should check for TSB's related to the specific vehicle and that code.

If a TSB has not been generated you should follow the specific troubleshooting steps for that code to pinpoint the source of the malfunction that the PCM is detecting to put the engine in fail-safe or limp mode.

Step 3

Once all other codes have been cleared or if no other codes are detected, if the Throttle Control Actuator code still exists the PCM and Throttle Control Actuator should be evaluated. All wiring and connections should be visually inspected for obvious defects as a starting point.

A good possibility for this code is that the idle calibration procedure needs to be re-applied to the vehicle using an advanced scan tool.

Common Mistake: Replacing the Throttle Control Actuator or PCM when other malfunctions are

setting this code.

Rare Repair: Replace Throttle Actuator Control

Hopefully, the information in this article has been helpful to point you in the right direction to correct the problem with your Throttle Actuator Control System force code. This article is strictly informational and the specific technical data and service bulletins for your vehicle should always take priority.

Severity Description

The severity of this code can be moderate to severe based on the specific malfunction.

Reference Sources

[Diagnostic Trouble Code \(DTC\) Charts and Descriptions for P2176](#) - Page 140.