

GM · POWERTRAIN

P1892

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1892 · GM

Throttle Position Sensor PWM Signal High

P1892 on a GM vehicle means the powertrain control module (PCM) has detected a pulse-width-modulated (PWM) throttle position sensor (TPS) signal that is higher than the expected voltage range for the current throttle angle. The PCM compares the PWM duty cycle from the TPS circuit against its calibrated limits and sets this code when the signal stays above the high threshold for a calibrated time.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	GM specific	Medium	Intermediate	Transmission

Symptoms you may notice

- Reduced engine power or limp mode with the check engine light on
- Hesitation, stumble, or poor acceleration when pressing the accelerator
- Erratic or delayed transmission shifts due to incorrect throttle input
- Unstable or high idle speed
- Often no symptoms besides the warning light if the fault is intermittent

Common causes, most likely first

- Failed throttle position sensor (TPS) or accelerator pedal position sensor with a shorted or skewed PWM output
- Chafed, shorted, or open signal wire between the TPS and the PCM
- Corroded or loose terminals at the TPS connector or PCM connector
- Water intrusion or contamination inside the TPS connector
- PCM internal fault on the PWM input circuit
- Aftermarket throttle controller or piggyback module interfering with the TPS signal

How to diagnose and fix it

- Scan all modules for stored and pending codes and record freeze-frame data for P1892
- Inspect the TPS connector and harness for corrosion, chafing, and water intrusion
- Back-probe the TPS PWM signal wire and compare duty cycle against the scan tool throttle position reading through the full pedal sweep
- Check reference voltage and ground at the TPS connector under load
- Perform a wiggle test on the harness while watching the TPS signal on a graphing meter to catch intermittent faults
- Replace the TPS or accelerator pedal assembly if the signal is confirmed out of range at the sensor
- Repair or replace the affected harness section or PCM if the circuit is proven faulty



Why the TPS signal reads high

- A high PWM signal often comes from a poor ground on the TPS circuit rather than a failed sensor, so check grounds before condemning the TPS.
- Aftermarket throttle controllers and pedal tuners are a common cause of P1892 because they alter the PWM duty cycle the PCM expects to see.
- The PCM may set P1892 from a momentary glitch that never returns, so clear the code and verify it resets before replacing parts.
- A binding or sticking throttle body can hold the TPS at a high angle and trigger this code even when the sensor itself is good.
- On some GM platforms the TPS PWM signal is shared with the accelerator pedal circuit, so a fault at the pedal can set P1892.

Can I keep driving with P1892?

You can usually drive to a shop if the vehicle is not in limp mode, but avoid heavy acceleration and towing until the fault is repaired. If the engine enters reduced power mode or the throttle response becomes erratic, stop driving and have the vehicle towed.

Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter with duty cycle and frequency functions
- Oscilloscope or graphing meter for PWM signal analysis
- Back-probe kit and terminal test leads
- Wiring diagram for the specific GM platform

Reading P1892

P	Powertrain: engine, transmission and emissions.
1	Manufacturer-specific code (GM): its meaning depends on the make.
8	Transmission.
92	The exact fault within that area.

Often seen with

P0121 Throttle Position Sensor A Circuit Range/Performance · **P0122** Throttle Position Sensor A Circuit Low Input · **P0123** Throttle Position Sensor A Circuit High Input · **P2135** Throttle/Pedal Position Sensor A/B Voltage Correlation · **P2138** Throttle/Pedal Position Sensor D/E Voltage Correlation



See it working

Watch the animated explainer **Turbocharger Trainer: Boost, Wastegate and Intercooler** on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/gm-p1892/>

