

GM · POWERTRAIN

P1516

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1516 · GM

Throttle Actuator Control (TAC) Module Throttle Actuator Position Performance

P1516 on GM vehicles indicates that the Throttle Actuator Control (TAC) module has detected a performance error in the throttle actuator position, meaning the actual throttle blade position does not match the commanded position within the expected time and tolerance. The TAC module monitors the throttle actuator motor and position sensors and sets this code when the correlation between commanded and actual position falls outside the calibrated range.

SYSTEM

Powertrain

CODE TYPE

GM specific

SEVERITY

High

FIX DIFFICULTY

Professional

AREA

Vehicle speed,
idle control and
auxiliary inputs

Symptoms you may notice

- Reduced engine power message displayed on the driver information center
- Engine may idle poorly or stall when coming to a stop
- Throttle pedal feels unresponsive or sluggish
- Transmission may shift harshly or refuse to downshift due to reduced torque management
- Often no symptoms besides the warning light and stored code

Common causes, most likely first

- 1 Carbon buildup or mechanical binding on the throttle blade or bore
- 2 Faulty throttle actuator motor or worn gears inside the throttle body
- 3 Throttle position sensor (TPS) signal erratic or out of range
- 4 Damaged or corroded wiring between the TAC module and throttle body
- 5 Failed TAC module or poor ground connection at the module
- 6 Low battery voltage or charging system issue affecting module performance



How to diagnose and fix it

- 1 Inspect the throttle body bore and blade for carbon deposits and clean thoroughly with throttle body cleaner
- 2 Check battery voltage and charging system output to ensure stable power to the TAC module
- 3 Perform a scan tool throttle relearn or TAC module calibration after cleaning or replacement
- 4 Backprobe the throttle actuator motor and TPS circuits for voltage drops or intermittent opens
- 5 Replace the throttle body assembly if the actuator motor or sensors are faulty
- 6 Repair or replace damaged wiring and connectors between the TAC module and throttle body
- 7 Replace the TAC module only after all other circuits and components have been verified

Before you replace the throttle body

- A dirty throttle body is the most common cause of P1516 on high-mileage GM vehicles, and a proper cleaning often resolves the code without any parts replacement.
- The TAC module and throttle body must be calibrated with a scan tool after any service, and skipping the relearn procedure will cause the code to return immediately.
- Intermittent wiring faults at the throttle body connector are frequently misdiagnosed as a failed throttle body, so always wiggle-test the harness while monitoring live data.
- A weak battery or poor ground can cause the TAC module to set P1516 even when the throttle body is functioning correctly, so verify power and ground integrity first.
- This code does not always mean the throttle body is defective; a sticking cruise control cable or pedal position sensor correlation issue can also trigger it on some GM platforms.

Can I keep driving with P1516?

Do not continue driving with P1516 active because the vehicle may enter reduced power mode without warning, limiting speed and acceleration. Have the vehicle diagnosed and repaired before driving at highway speeds or in traffic.

Tools that help

- OBD-II scan tool with bidirectional control and live data
- Digital multimeter
- Throttle body cleaner and soft brush
- Basic hand tools (sockets, screwdrivers)
- Wiring diagram and backprobe kit



Reading P1516

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (GM): its meaning depends on the make.
- 5** Vehicle speed, idle control and auxiliary inputs.
- 16** The exact fault within that area.

Often seen with

P1518 Main Relay Circuit Short To B+ · **P1515** Intake Manifold Changeover Valve Circuit Short To Ground · **P1517** Main Relay Circuit Electrical Malfunction · **P1515** Idle Air Control Solenoid Signal 3 Circuit High Input · **P1518** Starter Switch Circuit Low Input · **P1517** Idle Air Control Solenoid Signal 4 Circuit High Input · **P1517** Cranking Neutral Drive Fault · **P1515** A/T To M/T Codification · **P1517** Cranking Neutral Drive Fault · **P1515** Control Module Throttle Actuator Position Performance · **P1517** Throttle Actuator Control (TAC) Module Performance · **P1518** Throttle Actuator Control (TAC) Module Serial Data Circuit · **P1517** Intake Manifold Runner Control Input Error · **P1518** Intake Manifold Runner Control Fault Stuck Open · **P1515** Control Module Throttle Actuator Position Performance · **P1518** Throttle Actuator Control (TAC) Module Serial Data Circuit · **P1517** Throttle Actuator Control (TAC) Module Performance · **P0121** Throttle Position Sensor A Circuit Range/Performance · **P2135** Throttle/Pedal Position Sensor A/B Voltage Correlation

See it working

Watch the animated explainer [How a Refrigerator Works: The Cooling Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/gm-p1516/>

