

GENERIC · POWERTRAIN

P2638

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2638

Torque Management Feedback Signal 'A' Range/Performance

P2638 indicates that the powertrain control module (PCM) has detected an out-of-range or performance fault in the torque management feedback signal 'A' circuit, which is used to confirm that requested torque reductions are actually being carried out by the engine or transmission. The PCM compares the feedback signal against expected values and sets this code when the signal is erratic, stuck, or outside the allowable range for a calibrated time.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Computer and output circuits

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Harsh or delayed transmission shifts as torque management intervention becomes inconsistent
- Momentary loss of engine power or a stumble during acceleration
- Reduced fuel economy due to improper torque converter clutch operation
- In rare cases, the vehicle may enter limp mode or limit engine speed

Common causes, most likely first

- 1 Faulty torque management feedback sensor or its internal circuitry
- 2 Damaged, chafed, or corroded wiring in the feedback signal circuit
- 3 Loose or contaminated electrical connector at the sensor or PCM
- 4 Failed or failing PCM (less common but possible)
- 5 Software calibration issue in the PCM requiring reflash or update
- 6 Mechanical binding or wear in the transmission or torque converter affecting feedback signal generation



How to diagnose and fix it

- 1 Connect a scan tool and record all stored and pending codes, then clear codes and test-drive to see if P2638 returns
- 2 Visually inspect the torque management feedback sensor and its connector for damage, corrosion, or loose pins
- 3 Check the sensor's wiring harness for continuity, shorts to ground, and shorts to voltage using a digital multimeter
- 4 Compare live data from the feedback signal with the commanded torque reduction to verify erratic or stuck behavior
- 5 If wiring and sensor are good, check for technical service bulletins (TSBs) or calibration updates for the PCM
- 6 Substitute a known-good sensor or perform a resistance check per the manufacturer's specification
- 7 If all else fails, diagnose the PCM and consider replacement or reprogramming as a last resort

Feedback signal faults often misdiagnosed

- A common mistake is replacing the transmission or torque converter when the actual fault is a simple chafed wire in the feedback circuit.
- The torque management feedback signal is often derived from existing sensors such as the crankshaft position or transmission input speed sensor, so a fault in those circuits can set P2638 indirectly.
- Some vehicles use a dedicated feedback sensor that is part of the transmission valve body, and contamination or low fluid can cause intermittent signal dropouts.
- P2638 can be set by a low battery or charging system issue that causes voltage spikes, so always check battery and ground connections first.
- After repairs, a relearn or adaptive reset procedure may be required for the PCM to accept the new feedback signal and turn off the light.

Can I keep driving with P2638?

You can usually drive the vehicle with P2638, but avoid aggressive acceleration or heavy towing until the fault is repaired, as torque management inconsistencies may cause harsh shifts or momentary power loss. If the vehicle enters limp mode or shifts erratically, seek service promptly.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Basic hand tools for connector and sensor access
- Oscilloscope (optional for signal analysis)



Reading P2638

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 6** Computer and output circuits.
- 38** The exact fault within that area.

Often seen with

P0606 PCM Processor Fault · **P0700** Transmission Control System Malfunction · **P2637** Torque Management Feedback Signal 'A' · **P2639** Torque Management Feedback Signal 'A' Low · **U0100** Lost Communication With ECM/PCM A

See it working

Watch the animated explainer [How a Fuel Injector Works: Pulse Width and Spray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2638/>

