

GENERIC · POWERTRAIN

P2643

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2643

Torque Management Feedback Signal 'B' Low

P2643 indicates that the powertrain control module (PCM) has detected a low voltage condition on the torque management feedback signal 'B' circuit, which is used to monitor the actual torque delivered by the engine or transmission during torque reduction requests. The PCM expects this signal to remain within a specific voltage range, and a sustained low reading triggers the code.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Computer and output circuits

Symptoms you may notice

- Illumination of the check engine light (malfunction indicator lamp).
- Often no symptoms besides the warning light, especially if the fault is intermittent.
- Rough or erratic engine operation during acceleration or gear shifts.
- Reduced engine performance or limited power output.
- Harsh or delayed transmission shifts.
- In some cases, the vehicle may enter limp mode to protect the drivetrain.

Common causes, most likely first

- 1 Faulty torque management feedback sensor or actuator.
- 2 Damaged or corroded wiring or connector at the sensor or PCM.
- 3 Open or short to ground in the signal circuit.
- 4 Failed PCM or internal driver circuit.
- 5 Poor electrical ground connection for the sensor or PCM.
- 6 Aftermarket performance tuner or incorrect calibration interfering with torque management signals.

How to diagnose and fix it

- 1 Use an OBD-II scanner to verify the code and check for related freeze-frame data.
- 2 Inspect the torque management feedback sensor and its connector for physical damage or corrosion.
- 3 Perform a visual inspection of the wiring harness for chafing, breaks, or loose pins.
- 4 Measure resistance and voltage on the signal circuit according to the manufacturer's specifications.
- 5 Check and clean the sensor and PCM ground connections.
- 6 If the sensor is faulty, replace it with a known-good unit and clear the code.
- 7 If the wiring and sensor are good, test the PCM and reflash or replace if necessary.



Torque Management Signal Diagnostics

- A low feedback signal often results from a poor ground connection rather than a failed sensor, so always verify ground integrity before replacing parts.
- Intermittent P2643 codes can be caused by wiring chafing near hot exhaust components, which may not be visible until the harness is flexed.
- Aftermarket tuners that alter torque management parameters can set this code even when all hardware is functioning correctly.
- The code does not always indicate a sensor failure; a stuck-open torque converter clutch or transmission slip can cause the PCM to see low feedback voltage.
- Some vehicles require a relearn procedure after sensor replacement, and skipping it may cause the code to return.

Can I keep driving with P2643?

Driving with P2643 is generally safe for short distances, but avoid aggressive acceleration or heavy towing because torque management is compromised. If the vehicle enters limp mode or shifts harshly, seek service immediately.

Tools that help

- OBD-II scanner with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Basic hand tools (socket set, screwdrivers)
- Electrical contact cleaner

Reading P2643

- 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.
- 43** The exact fault within that area.

Often seen with

P0700 Transmission Control System Malfunction · **P0741** Torque Converter Clutch Circuit Performance or Stuck Off · **P2642** Torque Management Feedback Signal 'B' Range/Performance · **P2644** Torque Management Feedback Signal 'B' High · **P2645** 'A' Rocker Arm Actuator Control Circuit/Open (Bank 1)



See it working

Watch the animated explainer [How a Turbocharger Works, Step by Step](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2643/>

