

GENERIC · POWERTRAIN

P2160

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2160

Vehicle Speed Sensor 'B' Circuit Low

P2160 indicates that the powertrain control module (PCM) has detected an abnormally low voltage signal on the circuit for vehicle speed sensor 'B', which is typically a secondary speed input used for functions such as transmission shift scheduling or stability control. The PCM expects the sensor to produce a fluctuating voltage or digital square wave as the vehicle moves, and a constant low reading tells the module that the circuit is shorted to ground, the sensor has failed, or a wiring fault is pulling the signal low.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- An inoperative or inaccurate speedometer, especially if sensor 'B' is the primary speed source
- Harsh or erratic automatic transmission shifting due to missing or incorrect speed data
- Activation of the anti-lock brake system (ABS) or traction control warning light
- Cruise control refusing to engage or dropping out unexpectedly
- A stored code accompanied by a freeze frame showing vehicle speed at zero when the vehicle was moving

Common causes, most likely first

- 1 Faulty vehicle speed sensor 'B' itself, such as an internal short or failed hall-effect element
- 2 Damaged or chafed wiring between the sensor and the PCM, causing a short to ground
- 3 Corroded, loose, or water-intruded connector pins at the sensor or PCM
- 4 A shorted sensor signal wire rubbing against a grounded metal component
- 5 Failed or contaminated tone ring or reluctor wheel that the sensor reads
- 6 PCM internal fault pulling the signal circuit low, though this is less common
- 7 Aftermarket electrical accessories improperly tapped into the speed signal circuit



How to diagnose and fix it

- 1 Scan all modules for related codes and record freeze-frame data to confirm when the low signal was set
- 2 Visually inspect the sensor 'B' connector and wiring for corrosion, chafing, or loose pins
- 3 Measure resistance and voltage on the sensor 'B' circuit at the sensor connector and compare to manufacturer specifications
- 4 Check the sensor signal wire for continuity to ground with the sensor disconnected to rule out a short
- 5 Inspect the tone ring or reluctor wheel for cracks, missing teeth, or debris buildup
- 6 Replace the vehicle speed sensor 'B' if electrical tests confirm an internal short
- 7 Repair or replace damaged wiring and clear codes, then road-test to verify the signal returns and the code does not reset

Speed sensor B is not always the speedometer sensor

- Many vehicles use multiple speed sensors, and sensor 'B' often feeds the transmission control module or stability system rather than the instrument cluster, so the speedometer may work perfectly while this code sets.
- A common misdiagnosis is replacing sensor 'B' when the real fault is a shorted signal wire inside a harness that rubs against the frame or exhaust shield, which only shows up when the suspension moves.
- Aftermarket alarm systems, remote starters, or navigation units tapped into the speed signal wire can pull the circuit low and set P2160 without any factory component being defective.
- On some models, a failing output speed sensor inside the transmission is labeled as sensor 'B' in scan data, so confirm the exact location in the service information before ordering parts.
- The code can set intermittently from water intrusion into a connector after rain or a car wash, leaving no visible corrosion until the connector is opened and inspected.

Can I keep driving with P2160?

You can usually drive the vehicle short distances to a repair shop, but avoid sustained highway speeds and heavy loads because the transmission may shift erratically or the stability control may be disabled. If the speedometer is dead or the transmission is in limp mode, stop driving and have the vehicle towed.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with back-probing pins
- Wiring diagram and connector pinout for the specific vehicle
- Jack and jack stands or a vehicle lift for underbody inspection
- Basic hand tools for connector and sensor removal



Reading P2160

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 1** Fuel and air metering.
- 60** The exact fault within that area.

Often seen with

P0500 Vehicle Speed Sensor Malfunction · **P0720** Output Speed Sensor Circuit Malfunction · **P0721** Output Speed Sensor Range/Performance · **P2159** Vehicle Speed Sensor 'B' Range/Performance · **P2161** Vehicle Speed Sensor 'B' Intermittent/Erratic

See it working

Watch the animated explainer [How the PCV System Works: Crankcase Ventilation](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2160/>

