

GENERIC · POWERTRAIN

P030E

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P030E

Ignition B Control Signal Circuit Low

P030E indicates that the powertrain control module has detected a low voltage condition on the ignition control signal circuit for coil B, which is the second ignition coil or cylinder in the firing order. The circuit is either shorted to ground, open, or the coil's internal driver is failing, preventing the computer from properly triggering the spark event.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Ignition system and misfire

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Rough idle or misfire sensation, especially under load or acceleration
- Reduced engine power and poor fuel economy due to incomplete combustion
- Engine hesitation or stumble during acceleration
- Possible flashing check engine light if the misfire is severe enough to damage the catalytic converter

Common causes, most likely first

- 1 Faulty ignition coil B with an internally shorted primary winding
- 2 Damaged or chafed wiring in the ignition control signal circuit, causing a short to ground
- 3 Corroded or loose electrical connector at the ignition coil or PCM
- 4 Failed ignition control module or driver inside the PCM
- 5 Aftermarket alarm or remote start wiring that has tapped into the ignition circuit
- 6 Moisture intrusion into the coil connector or wiring harness

How to diagnose and fix it

- 1 Inspect the ignition coil B connector and wiring for corrosion, chafing, or loose pins
- 2 Disconnect the coil and measure resistance across the primary winding to compare with the manufacturer's specification
- 3 Check for a short to ground on the control signal wire using a multimeter with the ignition off
- 4 Swap ignition coil B with a known-good coil from another cylinder to see if the code follows the coil
- 5 Back-probe the control signal wire at the PCM and verify the voltage pulse with a lab scope or LED test light while cranking
- 6 Repair any damaged wiring or replace the faulty ignition coil, then clear the code and verify the repair with a test drive



Why coil B circuits fail without warning

- A low signal voltage can be caused by a short to ground in the wiring harness where it rubs against a metal bracket, which is often overlooked when only the coil is replaced.
- The PCM driver for ignition coil B can fail internally, and this is frequently misdiagnosed as a bad coil because the new coil will also not fire.
- Aftermarket remote start or alarm systems that splice into ignition wires are a common source of intermittent low signal faults on this circuit.
- P030E can set without any driveability complaint because the misfire may only occur under specific load or temperature conditions that the driver rarely encounters.
- A weak battery or poor ground connection can cause the ignition control signal to drop below the threshold, setting this code even though the coil and wiring are intact.

Can I keep driving with P030E?

You can drive cautiously to a repair shop if the check engine light is steady and the engine runs smoothly, but avoid hard acceleration and heavy loads. If the light flashes or the engine misfires noticeably, stop driving to prevent catalytic converter damage.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Lab scope or LED test light
- Socket set and Torx bits
- Wiring diagram for the ignition system

Reading P030E

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
3	Ignition system and misfire.
0E	The exact fault within that area.

Often seen with

P0300 Random/Multiple Cylinder Misfire Detected · **P0301** Cylinder 1 Misfire Detected · **P0302** Cylinder 2 Misfire Detected · **P0351** Ignition Coil A Primary/Secondary Circuit Malfunction · **P0352** Ignition Coil B Primary/Secondary Circuit Malfunction



See it working

Watch the animated explainer **Four-Stroke Engine Cutaway: Intake to Exhaust** on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p030e/>

