

GENERIC · POWERTRAIN

P2313

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2313

Ignition Coil 'E' Primary Control Circuit High

P2313 means the engine computer has detected an abnormally high voltage on the primary control circuit for ignition coil 'E', which is the low-voltage side that the computer pulses to fire the coil. The computer expects that circuit to pull down to near ground when it commands the coil on, so a voltage that stays high tells it the coil is not being energized as intended.

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 at first
- Engine misfire that may feel like a stumble, shake, or rough idle
- Reduced power or hesitation during acceleration
- A dead miss on one cylinder that persists at all engine speeds
- Slightly rough running when cold that may or may not improve when warm
- In some vehicles, a limp-home mode or reduced engine power message

Common causes, most likely first

- 1 Open or damaged wire in the coil primary control circuit between the computer and the coil connector
- 2 Corroded, loose, or pushed-back terminal in the ignition coil 'E' electrical connector
- 3 Failed ignition coil 'E' with an open primary winding
- 4 Faulty engine computer driver for that coil circuit, though this is less common
- 5 Poor engine or chassis ground that raises the reference voltage the computer sees
- 6 Aftermarket alarm or remote-start wiring that has tapped into or disturbed the coil circuit



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm the fault is current and not a stored history code
- 2 Inspect the ignition coil 'E' connector and harness for corrosion, loose pins, or chafed wiring, and repair as needed
- 3 Measure resistance of the coil primary winding and compare it with the manufacturer's specification
- 4 Back-probe the control circuit at the computer with a scope or logic probe to see whether the driver pulses and whether the voltage pulls low
- 5 Check for voltage drops on the coil power feed and ground circuits under load
- 6 Swap the suspect coil with a known-good coil from another cylinder to see whether the misfire and code follow the coil
- 7 If the circuit and coil test good, test the computer driver output and replace or repair the computer only after all other causes are ruled out

What a high primary circuit really means

- A high voltage on the primary control circuit usually means the circuit is open, so the computer's pull-down is not being felt; it rarely means the coil is receiving too much power.
- Technicians often replace the coil first and find the code returns because the real fault is a backed-out terminal or a broken wire inside the loom near the coil connector.
- A coil that tests fine on a resistance check can still set this code if its internal driver or the computer's driver has failed intermittently when hot.
- This code can be set by a poor ground shared with other engine sensors, so check ground straps and engine-to-chassis grounds before condemning the computer.
- Vehicles with aftermarket remote starters or alarm systems sometimes develop this code because tapped ignition wiring changes the resistance the computer expects to see.

Can I keep driving with P2313?

You can usually drive the vehicle to a repair shop, but avoid heavy acceleration and long trips because a persistent misfire can overheat the catalytic converter and waste fuel. If the check engine light begins flashing, stop driving and have the vehicle towed.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with resistance and voltage-drop functions
- Oscilloscope or logic probe for viewing the coil control pulse
- Wire terminal pick and connector pin repair kit
- Factory service information for coil circuit testing and computer pinout



Reading P2313

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

Often seen with

P0355 Ignition Coil 'E' Primary/Secondary Circuit · **P2300** Ignition Coil 'A' Primary Control Circuit Low · **P2310** Ignition Coil 'D' Primary Control Circuit High · **P2311** Ignition Coil 'D' Secondary Circuit · **P2312** Ignition Coil 'E' Primary Control Circuit Low

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/p2313/>

