

GENERIC · POWERTRAIN

P2334

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2334

Ignition Coil 'L' Primary Control Circuit High

P2334 means the engine computer has detected a high voltage condition on the primary control circuit for ignition coil 'L', which is the low-voltage side that the computer uses to switch the coil on and off. The circuit is staying high when the computer expects it to pulse or drop, so the computer flags the coil's control circuit as faulty.

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 symptoms besides the warning light
- Engine misfire or rough running, especially under load or acceleration
- Noticeable loss of power or sluggish acceleration
- Shaking or vibration from the engine at idle
- Worse fuel economy than usual
- In some cases, a flashing check engine light if the misfire is severe enough to damage the catalytic converter

Common causes, most likely first

- 1 Open or damaged wire in the coil's primary control circuit, such as a broken conductor or corroded connector terminal
- 2 Failed ignition coil with an internal short or open in its primary winding
- 3 Faulty ignition control module or driver inside the engine computer that keeps the circuit pulled high
- 4 Poor electrical connection at the coil harness, including loose pins, water intrusion, or backed-out terminals
- 5 Short to voltage on the control wire, often from chafed insulation rubbing against a power wire
- 6 Failed spark plug or spark plug boot causing the coil to overheat and damage its primary circuit
- 7 Aftermarket or incorrect coil installed that does not match the vehicle's electrical requirements



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm P2334 is the only coil circuit code and note when it set
- 2 Inspect the ignition coil 'L' connector and harness for corrosion, loose pins, chafing, or signs of water intrusion
- 3 Measure resistance of the coil's primary winding with a multimeter and compare it to the manufacturer's specification
- 4 Back-probe the control circuit at the coil connector and check for a clean switching signal with a lab scope or LED test light while cranking
- 5 Check for a short to voltage on the control wire by disconnecting both ends and measuring voltage with the key on
- 6 Swap the suspect coil with a known-good coil from another cylinder to see if the misfire and code follow the coil
- 7 If the circuit and coil test good, test the engine computer's driver output and repair or replace the computer as needed

What a high coil circuit really means

- A high voltage reading on the primary control circuit often points to an open circuit rather than a shorted coil, so technicians who replace the coil first may miss a broken wire or corroded terminal.
- The engine computer may set P2334 when it detects an unexpected voltage on the control wire during a self-test, even if the coil still fires normally at speed, which is why the code can appear with no driveability symptoms.
- A failing spark plug or worn plug boot can cause the coil to arc internally and damage its primary circuit over time, so always inspect the plug and boot when replacing a coil for this code.
- Coil 'L' is one of several coil designations, and the same fault can set codes for other coils at the same time if the problem is in a shared power or ground circuit rather than the individual coil.
- Aftermarket coils with incorrect resistance can trigger P2334 even when the wiring is perfect, so verify the replacement coil meets the original equipment specification.

Can I keep driving with P2334?

You can usually drive the vehicle to a repair shop if the check engine light is steady and the engine runs smoothly, but avoid heavy acceleration and long trips. If the light is flashing or the engine misfires badly, stop driving and have it towed to prevent catalytic converter damage.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter
- Lab scope or LED test light for checking the coil control signal
- Basic hand tools for removing coil packs and connectors
- Wiring diagram for the ignition system

Reading P2334

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

Often seen with

P0300 Random/Multiple Cylinder Misfire Detected · **P0350** Ignition Coil Primary/Secondary Circuit · **P0351** Ignition Coil A Primary/Secondary Circuit Malfunction · **P2333** Ignition Coil 'L' Primary Control Circuit Low · **P2335** Ignition Coil 'L' Secondary Circuit

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/p2334/>

