

GENERIC · POWERTRAIN

P036F

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P036F

Ignition H Control Signal Circuit High

P036F indicates that the powertrain control module (PCM) has detected an abnormally high voltage on the control circuit for ignition coil H, which is one of the individual coil-on-plug or coil-per-cylinder circuits. The PCM commands a ground to fire the coil, so a high-voltage reading on the control wire tells the module that the circuit is open, shorted to voltage, or that the coil's internal driver has failed.

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 felt as shaking or a stumble, especially when the engine is cold
- Reduced engine power or a limp-home mode if the fault is severe enough to trigger protection strategies
- Poor fuel economy or a strong raw-fuel smell from the exhaust
- Occasional hard starting or a crank-no-start condition if the affected cylinder is critical
- A flashing check engine light under load, indicating a misfire that can damage the catalytic converter

Common causes, most likely first

- 1 Open or damaged control wire between the PCM and ignition coil H, often from chafing or a broken connector pin
- 2 Failed ignition coil H with an open internal primary winding or driver circuit
- 3 Corroded, loose, or water-intruded electrical connector at coil H or at the PCM
- 4 Short to voltage on the control circuit, such as a rubbed-through wire touching a power feed
- 5 PCM driver failure for that specific coil control channel, though this is less common
- 6 Aftermarket alarm or remote-start wiring that has tapped into or disturbed the coil control circuit



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm P036F is active and not a history code from a past repair
- 2 Inspect the ignition coil H connector and the PCM connector for corrosion, loose pins, or pushed-out terminals
- 3 Swap ignition coil H with a known-good coil from another cylinder and see if the code follows the coil or stays with the cylinder
- 4 Use a digital multimeter to check the control circuit for an open, a short to ground, and a short to voltage with the PCM disconnected
- 5 Back-probe the control wire with a lab scope or a noid light to verify the PCM is actually commanding the coil to fire
- 6 Repair or replace the faulty section of harness, the connector, or the coil as indicated by the tests
- 7 Clear the code and perform a road test with a scan tool to confirm the repair and that no misfire counters return

Why coil H control faults get misdiagnosed

- A high-voltage control signal code does not automatically mean the coil is bad; an open control wire or a poor connector pin will set the same code and replacing the coil will not fix it.
- Technicians often overlook that the PCM fires the coil by grounding the control circuit, so a high voltage reading can simply mean the PCM is not commanding the coil at all due to a driver fault or a wiring break.
- Water intrusion into the coil connector or a cracked coil boot can cause intermittent high-voltage readings that only appear in damp weather, leading to a no-fault-found diagnosis.
- Aftermarket remote starters and alarm systems frequently splice into ignition coil control wiring, and a poor splice can create the high resistance that sets P036F.
- A misfire from a failed coil H can damage the catalytic converter quickly, so a flashing check engine light should be treated as an urgent stop-driving condition even if the code seems minor.

Can I keep driving with P036F?

You can usually drive a short distance to a repair shop if the check engine light is steady and the engine runs smoothly, but avoid heavy acceleration and towing. If the light is flashing or the engine is misfiring badly, stop driving to prevent catalytic converter damage.

Tools that help

- OBD-II scan tool with live data and misfire counters
- Digital multimeter with back-probe pins
- Lab scope or noid light for coil control signal testing
- Basic hand tools for coil and connector access
- Wiring diagram for the ignition coil H circuit



Reading P036F

- 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.
- 6F** The exact fault within that area.

Often seen with

P0300 Random/Multiple Cylinder Misfire Detected · **P0301** Cylinder 1 Misfire Detected · **P0350** Ignition Coil Primary/Secondary Circuit · **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/p036f/>

