

GENERIC · POWERTRAIN

**P0356**

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

**P0356**

## Ignition Coil 'F' Primary/Secondary Circuit

P0356 indicates that the engine control module (ECM) has detected a fault in the primary or secondary circuit of ignition coil 'F', which is usually the coil for a specific cylinder. The ECM monitors the coil's electrical behavior and sets this code when the circuit does not respond as expected during engine operation.

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
- Engine misfire, especially under load or acceleration
- Rough idle or shaking felt through the steering wheel and seats
- Reduced engine power or sluggish acceleration
- Poor fuel economy due to incomplete combustion
- In some cases, a flashing check engine light indicating a severe misfire that can damage the catalytic converter

### Common causes, most likely first

- 1 Faulty ignition coil 'F' (primary or secondary winding failure)
- 2 Worn or damaged spark plug or spark plug boot
- 3 Damaged wiring or connector at the ignition coil 'F'
- 4 Open or short circuit in the coil control circuit between the ECM and coil 'F'
- 5 Corroded or loose ground connection for the ignition coil
- 6 Failed driver circuit inside the ECM (less common)

### How to diagnose and fix it

- 1 Perform a visual inspection of the ignition coil 'F', its connector, and wiring for damage or corrosion
- 2 Swap ignition coil 'F' with a known-good coil from another cylinder to see if the misfire follows the coil
- 3 Test the primary and secondary resistance of the coil with a multimeter and compare to specifications
- 4 Check for spark at the affected cylinder using a spark tester
- 5 Inspect and test the spark plug and replace if worn or fouled
- 6 Check the coil control circuit for continuity and shorts between the ECM and coil 'F'
- 7 If all else checks out, test the ECM driver circuit or consult a professional for advanced diagnostics



## Ignition coil 'F' circuit pitfalls

- A P0356 code can be set by a faulty spark plug or boot that causes the coil to work harder and eventually fail, so always inspect the plug when replacing a coil.
- The coil 'F' designation does not always correspond to cylinder 6; always consult the vehicle's specific coil identification chart to avoid replacing the wrong coil.
- Intermittent wiring issues, such as a chafed wire that only shorts when the engine moves, can set this code without a hard failure, so wiggle-test the harness while the engine runs.
- A weak battery or charging system problem can cause low voltage to the coils and trigger a P0356 code, so check battery and alternator output before condemning the coil.
- After replacing the coil, the code may remain stored until the ECM completes a successful drive cycle, so clear the code and verify the repair with a test drive.

## Can I keep driving with P0356?

It is not recommended to drive for extended periods with a P0356 code, especially if the check engine light is flashing, as continued misfiring can damage the catalytic converter and cause poor performance. Limit driving to a short distance to a repair shop or until the fault is diagnosed.

## Tools that help

- OBD-II scanner
- Digital multimeter
- Spark tester
- Socket set and ratchet
- Wire probe or back-probe kit

## Reading P0356

|           |                                                                      |
|-----------|----------------------------------------------------------------------|
| <b>P</b>  | Powertrain: engine, transmission and emissions.                      |
| <b>0</b>  | Generic (SAE) code: it means the same thing on every OBD-II vehicle. |
| <b>3</b>  | Ignition system and misfire.                                         |
| <b>56</b> | The exact fault within that area.                                    |

## Often seen with

**P0300** Random/Multiple Cylinder Misfire Detected · **P0306** Cylinder 6 Misfire Detected · **P0351** Ignition Coil A Primary/Secondary Circuit Malfunction · **P0352** Ignition Coil B Primary/Secondary Circuit Malfunction · **P0353** Ignition Coil C 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/p0356/>

