

GENERIC · POWERTRAIN

P0351

OBD-II TROUBLE CODE

P0351

Ignition Coil A Primary/Secondary Circuit Malfunction

P0351 indicates that the powertrain control module (PCM) has detected an abnormal condition in the primary or secondary circuit of ignition coil A, which is typically the coil responsible for cylinder number one. The PCM monitors the coil's electrical behavior and sets this code when the circuit does not perform as expected, often due to an open, short, or excessive resistance in the wiring or the coil itself.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	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 and poor fuel economy
- Difficulty starting or intermittent stalling
- Flashing check engine light in severe cases, indicating a misfire that could damage the catalytic converter

Common causes, most likely first

- 1 Faulty ignition coil A (primary or secondary winding failure)
- 2 Worn or damaged spark plug or spark plug boot
- 3 Open or shorted wiring in the coil primary circuit
- 4 Corroded or loose electrical connector at the coil
- 5 Failed ignition control module or driver circuit inside the PCM
- 6 Poor engine ground connection affecting coil operation



How to diagnose and fix it

- 1 Perform a visual inspection of coil A, its connector, and the spark plug, looking for cracks, corrosion, or damage
- 2 Use a scan tool to check for related misfire codes and freeze-frame data to confirm the fault
- 3 Swap coil A with a known-good coil from another cylinder and see if the code moves, confirming a coil fault
- 4 Measure resistance of the coil primary and secondary windings with a multimeter and compare to specifications
- 5 Check for battery voltage and ground at the coil connector with the key on, and inspect the wiring harness for opens or shorts
- 6 Test the spark plug and replace if worn or fouled, and inspect the spark plug boot for carbon tracking
- 7 If the coil and wiring test good, diagnose the ignition control circuit from the PCM, including driver operation and signal integrity

Coil A Faults That Fool Good Technicians

- A failed spark plug or excessive plug gap can overstress ignition coil A and cause a P0351 without the coil itself being defective, so always replace plugs when servicing coils.
- The code refers to 'Coil A' by cylinder number, but on some engines coil A may not be cylinder one; consult the specific firing order and coil labeling before swapping parts.
- Intermittent P0351 codes often stem from a chafed wire in the coil harness rather than a bad coil, especially where the harness rubs against the engine cover or accessory brackets.
- A weak battery or charging system can cause voltage drops that mimic a coil circuit fault, so verify battery and alternator health before condemning the coil.
- After replacing a coil, the PCM may need to relearn the crankshaft position variation; failing to do so can leave a residual misfire that is mistaken for a recurring P0351.

Can I keep driving with P0351?

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 or towing. If the light flashes or the engine misfires badly, stop driving to prevent catalytic converter damage.

Tools that help

- OBD-II scan tool with live data and misfire monitoring
- Digital multimeter
- Spark tester
- Socket set and extensions
- Feeler gauge or spark plug gap tool
- Wiring diagram for the ignition system



Reading P0351

- 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.
- 51** The exact fault within that area.

Often seen with

P0300 Random/Multiple Cylinder Misfire Detected · **P0301** Cylinder 1 Misfire Detected · **P0352** Ignition Coil B Primary/Secondary Circuit Malfunction · **P0353** Ignition Coil C Primary/Secondary Circuit Malfunction · **P0354** Ignition Coil D 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/p0351/>

