

GENERIC · POWERTRAIN

P03FD

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P03FD

Ignition L Control Signal Circuit/Open

P03FD indicates that the powertrain control module (PCM) has detected an open circuit or loss of control signal on the ignition coil control circuit for the cylinder or coil designated as 'L'. The PCM commands the coil to fire, but the expected electrical feedback or current flow is missing, so it flags the circuit as open.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Ignition system and misfire

Symptoms you may notice

- Check engine light or service engine soon light illuminated
- Engine misfire, often felt as a stumble or rough idle
- Reduced engine power or limp mode under load
- Shaking or vibration during acceleration
- Often no symptoms besides the warning light, especially if the misfire is intermittent
- Slightly rough running when cold or damp

Common causes, most likely first

- 1 Broken, chafed, or corroded wire in the ignition coil control circuit
- 2 Loose or damaged electrical connector at the ignition coil or PCM
- 3 Failed ignition coil with an open primary winding
- 4 Faulty powertrain control module (PCM) driver circuit
- 5 Poor ground connection for the ignition coil or engine block
- 6 Aftermarket alarm or remote start wiring that has compromised the circuit



How to diagnose and fix it

- 1 Inspect the ignition coil connector and wiring for looseness, corrosion, or damage; clean and reseal as needed
- 2 Swap the suspect ignition coil with a known-good coil from another cylinder to see if the misfire follows the coil
- 3 Use a digital multimeter to check resistance of the ignition coil primary and secondary windings against manufacturer specifications
- 4 Check for battery voltage at the coil connector with the key on, and check the control wire for continuity from the PCM to the coil
- 5 Perform a wiggle test on the harness while watching live misfire data to reveal intermittent opens
- 6 If the circuit tests good, check the PCM driver output with an oscilloscope or a noid light designed for ignition coils
- 7 Repair or replace the faulty wiring, connector, coil, or PCM as determined by the tests

Before you replace the ignition coil

- A loose connector or backed-out terminal at the coil is a far more common cause of an open circuit code than a failed coil itself, so always inspect the plug before condemning the part.
- The code can set intermittently from vibration or heat, and the coil may test fine when cold; a wiggle test on the harness while monitoring misfire counters often exposes the real fault.
- Aftermarket remote start or alarm installations frequently tap into ignition coil wiring and can create an open circuit that looks like a factory defect.
- P03FD refers to the 'L' coil control circuit, which on some engines is a specific cylinder, but on others it may be a secondary coil in a waste-spark system; confirm the cylinder mapping before swapping parts.
- A failed PCM driver is rare but possible; do not replace the PCM until you have verified the control wire is not shorted to ground or power and the coil has been ruled out.

Can I keep driving with P03FD?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration or towing because a misfire can overheat the catalytic converter and cause costly damage. If the check engine light is flashing, stop driving and have the vehicle towed.

Tools that help

- OBD-II scan tool with live misfire data
- Digital multimeter
- Test light or noid light for ignition coils
- Oscilloscope (optional but helpful)
- Wire terminal removal tools
- Factory service information for wiring diagrams and resistance specs



Reading P03FD

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.
FD	The exact fault within that area.

Often seen with

P0300 Random/Multiple Cylinder Misfire Detected · **P0301** Cylinder 1 Misfire Detected · **P0351** Ignition Coil A Primary/Secondary Circuit Malfunction · **P0352** Ignition Coil B Primary/Secondary Circuit Malfunction · **P03FC** Ignition K Control Signal Circuit High

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/p03fd/>

