

GENERIC · POWERTRAIN

P035D

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P035D

Ignition F Control Signal Circuit/Open

P035D indicates that the engine control module (ECM) has detected an open circuit or loss of signal on the ignition coil control circuit for cylinder F, which is typically the sixth cylinder in the firing order. The ECM commands the coil to fire but does not see the expected electrical response, so it flags the circuit as faulty and may disable that cylinder's ignition to protect the catalytic converter.

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 the only noticeable symptom
- Rough idle or misfire sensation, especially when the engine is cold or under light load
- Noticeable loss of power and reduced fuel economy due to a dead cylinder
- Shaking or vibration during acceleration that worsens with engine speed
- In some cases, the engine may enter limp mode or flash the check engine light if the misfire is severe

Common causes, most likely first

- 1 Damaged or disconnected ignition coil electrical connector at cylinder F
- 2 Open or shorted wire in the coil control circuit between the ECM and the coil
- 3 Failed ignition coil on cylinder F (primary winding open or shorted)
- 4 Corroded or backed-out terminal in the coil connector or ECM connector
- 5 Faulty ECM driver for that ignition circuit (rare but possible)
- 6 Aftermarket alarm or remote start wiring that has compromised the coil circuit



How to diagnose and fix it

- 1 Inspect the ignition coil connector at cylinder F for looseness, corrosion, or damaged pins, and reconnect or repair as needed
- 2 Swap the ignition coil from cylinder F with a known-good coil from another cylinder and clear the code to see if the misfire moves
- 3 Use a noid light or oscilloscope to check for a command signal at the coil connector while cranking the engine
- 4 Check continuity and resistance of the control wire from the coil connector to the ECM, looking for opens or shorts
- 5 Inspect the ECM connector for corrosion or pushed-out terminals, and repair any wiring faults found
- 6 If the circuit tests good but the coil does not fire, replace the ignition coil on cylinder F
- 7 If all wiring and the coil are good but the ECM does not command the coil, diagnose or replace the ECM as a last resort

What a P035D really tells you

- A P035D is a circuit code, not a misfire code, so it can set even when the engine runs perfectly because the ECM only sees an electrical fault on the control wire.
- Many technicians replace the ignition coil first, but a loose or corroded connector at the coil is a far more common cause of an open circuit on this circuit.
- The coil control wire is a low-current signal from the ECM, so a poor connection anywhere along the harness can set this code without blowing a fuse.
- If the misfire is severe, the ECM may shut down the fuel injector for that cylinder to protect the catalytic converter, which can make the engine run worse and set additional codes.
- Aftermarket remote start or alarm systems that tap into ignition wiring are a frequent hidden cause of open circuits on coil control wires.

Can I keep driving with P035D?

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

Tools that help

- OBD-II scan tool with live data and misfire counter capability
- Digital multimeter for continuity and resistance checks
- Noid light or oscilloscope to verify coil command signal
- Basic hand tools (socket set, screwdrivers, pick tools) for connector and coil access
- Wiring diagram for the specific vehicle to trace the coil control circuit



Reading P035D

- 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.
- 5D** 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 · **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/p035d/>

