



P031F

Ignition D Control Signal Circuit High

P031F is a generic powertrain code indicating that the powertrain control module (PCM) has detected an abnormally high voltage on the ignition control signal circuit for ignition coil or cylinder 'D'. The PCM commands a ground pulse to fire the coil, and it monitors the circuit for a return signal; when the voltage on that control line stays above the expected threshold, the PCM flags the circuit as high and stores this code.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Ignition system and misfire

Symptoms you may notice

- The check engine light illuminates, often with no other noticeable symptoms.
- A misfire may be felt as a stumble, rough idle, or hesitation during acceleration.
- The engine may run rough or exhibit reduced power under load.
- In some cases, the engine may crank but fail to start if the affected ignition circuit is completely inoperative.
- A slight decrease in fuel economy may occur due to incomplete combustion.
- The PCM may disable the affected cylinder's fuel injector to protect the catalytic converter, worsening the misfire.

Common causes, most likely first

- 1 A faulty ignition coil or coil-on-plug assembly with an internal short or open in its control circuit.
- 2 Damaged or chafed wiring in the ignition control circuit, often shorted to voltage or a nearby power wire.
- 3 Corroded, loose, or pushed-back terminals at the ignition coil connector or PCM connector.
- 4 A failed ignition control module (ICM) or igniter that is integrated into the coil or mounted separately.
- 5 A PCM driver circuit failure, though this is less common and should be confirmed after all other causes are ruled out.
- 6 Aftermarket or incorrect ignition components that do not meet the original equipment specifications.
- 7 Water intrusion or oil contamination in the coil connector causing a high-resistance or shorted condition.



How to diagnose and fix it

- 1 Perform a visual inspection of the ignition coil 'D' connector and wiring for damage, corrosion, or loose pins, and repair as needed.
- 2 Use a digital multimeter to check for battery voltage at the coil connector with the key on, and compare the control circuit voltage to the specification.
- 3 Swap the ignition coil from cylinder 'D' with a known-good coil from another cylinder to see if the misfire or code follows the coil.
- 4 Back-probe the control circuit at the PCM and at the coil to check for a short to voltage or an open circuit while wiggling the harness.
- 5 If the coil and wiring test good, test the ignition control module or igniter according to the manufacturer's procedure, and replace if faulty.
- 6 Clear the code and perform a road test to verify the repair; if the code returns, re-evaluate the PCM driver circuit and consider PCM replacement as a last resort.
- 7 After repairs, check for any related misfire codes and confirm that all readiness monitors have completed.

What a high ignition control signal really means

- A high voltage on the ignition control circuit often indicates a short to voltage rather than a failed coil, so chasing the coil first can waste money.
- The PCM may set this code without ever illuminating a misfire code if the fault is intermittent and the driver does not notice a stumble.
- A poor ground connection at the engine block or chassis can cause the PCM to see a false high voltage on the control circuit, mimicking a coil failure.
- Aftermarket alarm or remote start wiring tapped into the ignition circuit can introduce voltage spikes that trigger this code, especially if the installation was careless.
- The code can be set by a faulty PCM driver, but this is rare; always confirm the circuit integrity and rule out all other causes before condemning the PCM.

Can I keep driving with P031F?

You can usually drive the vehicle to a repair shop if the only symptom is the check engine light, but avoid heavy acceleration or towing until the fault is repaired. If the engine is misfiring noticeably or lacks power, limit driving to a short distance to prevent catalytic converter damage.



Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter (DMM)
- Test light
- Back-probe kit or wiring piercing probes
- Factory service information for wiring diagrams and pinouts
- Basic hand tools for coil and connector removal

Reading P031F

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.
1F	The exact fault within that area.

Often seen with

P0300 Random/Multiple Cylinder Misfire Detected · **P0304** Cylinder 4 Misfire Detected · **P031E** Ignition D Control Signal Circuit Low · **P0320** Ignition/Distributor Engine Speed Input Circuit · **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/p031f/>

