

GENERIC · POWERTRAIN

P03DF

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P03DF

Cylinder 8 Pressure Sensor Circuit Intermittent/Erratic

P03DF indicates that the powertrain control module (PCM) has detected an intermittent or erratic signal from the cylinder 8 pressure sensor, which is used on engines with direct fuel injection to monitor combustion pressure. The PCM sets this code when the sensor's voltage or signal pattern falls outside expected limits for a calibrated period, often due to a loose connection, wiring fault, or failing sensor.

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
- Rough idle or misfire sensation, especially under load
- Reduced engine power or limp mode in some vehicles
- Poor fuel economy or increased emissions
- Intermittent hesitation or stumble during acceleration
- Hard starting or stalling in severe cases

Common causes, most likely first

- 1 Faulty cylinder 8 pressure sensor
- 2 Damaged or corroded wiring or connector at the sensor
- 3 Loose or improperly seated sensor
- 4 Electrical interference or poor ground connection
- 5 PCM software issue or internal fault
- 6 Mechanical problem such as carbon buildup on the sensor tip
- 7 Engine mechanical issues affecting cylinder pressure (e.g., valve or piston problems)



How to diagnose and fix it

- 1 Inspect the sensor connector and wiring for damage, corrosion, or looseness; clean and reseat as needed
- 2 Check for technical service bulletins (TSBs) or software updates for the PCM related to this code
- 3 Perform a wiggle test on the sensor harness while monitoring live data to identify intermittent faults
- 4 Swap the cylinder 8 pressure sensor with a known-good sensor from another cylinder (if accessible) to see if the code moves
- 5 Measure sensor resistance and compare to manufacturer specifications; replace if out of range
- 6 Check engine mechanical health with a compression test or cylinder leak-down test if the sensor and wiring are good
- 7 Reprogram or replace the PCM only after all other causes are ruled out

Don't overlook the wiring harness

- A common oversight is replacing the pressure sensor without checking the harness for chafing or heat damage, which can cause intermittent signals that mimic a failed sensor.
The code can be set by a loose sensor that vibrates under certain engine speeds, so torque specifications must be followed precisely during installation.
- In some cases, a dirty or clogged oil passage can affect sensor operation, so oil quality and maintenance history should be verified.
- This code may appear alongside misfire codes for cylinder 8, but the root cause could be the sensor circuit rather than ignition or fuel delivery.
After repairs, clear the code and perform a drive cycle that includes the conditions needed to set the monitor; some vehicles require multiple key cycles before the code clears permanently.

Can I keep driving with P03DF?

You can generally continue driving with caution, but avoid heavy acceleration or towing until the fault is diagnosed, as the engine may enter limp mode or run poorly. If the check engine light flashes or performance degrades significantly, stop driving and seek professional diagnosis.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Basic hand tools (socket set, screwdrivers)
- Wiring diagram for the specific vehicle
- Compression tester (if mechanical issues are suspected)



Reading P03DF

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

Often seen with

P0087 Fuel Rail/System Pressure - Too Low · **P0300** Random/Multiple Cylinder Misfire Detected · **P0308** Cylinder 8 Misfire Detected · **P03DE** Cylinder 8 Pressure Sensor Circuit High · **P03E0** Cylinder 8 Pressure Too Low

See it working

Watch the animated explainer [How a Boxer Engine Works: Flat Engine Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p03df/>

