

FORD · POWERTRAIN

P1316

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1316 · Ford

Injector Circuit IDM Codes Detected

P1316 on Ford vehicles means the powertrain control module has stored one or more injector circuit fault codes in the injector driver module, which is the separate module that fires the fuel injectors on many Ford diesel and some gasoline engines. The computer is not reporting a single failed injector directly; it is telling you that the IDM has flagged a circuit problem and passed that information up to the main PCM.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Ford specific	Medium	Professional	Ignition system and misfire

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptom
- Engine misfire, rough idle, or a noticeable stumble under acceleration
- Reduced power or limp mode, especially on Ford diesel applications
- Hard starting, long cranking, or a no-start condition in severe cases
- Excessive fuel smoke or poor fuel economy from an injector that is not firing correctly
- A stored injector circuit code in the IDM that may not appear on a basic scan tool

Common causes, most likely first

- 1 Faulty or chafed injector harness wiring or connector pins at the valve cover gasket pass-through
- 2 Failed injector driver module, which is common on older Ford diesel engines
- 3 One or more failed fuel injectors with an open or shorted solenoid coil
- 4 Corroded or loose electrical connectors between the IDM, PCM, and injector harness
- 5 Damaged valve cover gasket injector harness on Ford diesel applications
- 6 Low or inconsistent battery voltage affecting IDM operation and injector firing
- 7 PCM or IDM software issue requiring reflash or replacement



How to diagnose and fix it

- 1 Connect a capable scan tool and retrieve the specific injector circuit codes stored in the IDM, not just the P1316 from the PCM
- 2 Inspect the injector harness and connectors for chafing, corrosion, and loose pins, especially at the valve cover gasket on diesel engines
- 3 Measure injector solenoid resistance with a multimeter and compare against the manufacturer's specification for each cylinder
- 4 Check battery voltage and charging system output, since low voltage can set false injector circuit codes
- 5 Perform a buzz test or injector contribution test with a Ford-specific diagnostic tool to isolate the affected cylinder
- 6 Repair or replace the faulty injector, harness section, or valve cover gasket harness as indicated by the tests
- 7 Clear codes and verify the repair with a road test and a re-scan of both PCM and IDM

What the IDM is really telling you

- P1316 is a summary code, so the real diagnostic information lives in the individual injector circuit codes stored in the IDM, and a generic scan tool may not display them.
- On Ford 7.3L and 6.0L diesel engines, a chafed injector harness under the valve cover is a very common cause that is often missed when only the PCM is scanned.
- A weak or failing battery can set P1316 without any actual injector fault, so voltage supply and grounds deserve checking before any injector is replaced.
- The code does not always mean an injector has failed; it can be set by a wiring fault, a connector problem, or a failing IDM itself.
- Replacing an injector without first running a buzz test and checking harness continuity frequently leads to a repeat code and unnecessary parts cost.

Can I keep driving with P1316?

You can usually drive a short distance to a repair shop if the engine runs smoothly, but avoid heavy acceleration, towing, or long trips because a misfiring injector can cause engine damage and leave you stranded. If the engine is misfiring badly or in limp mode, stop driving and arrange a tow.

Tools that help

- Ford-specific scan tool capable of reading IDM codes and running injector buzz tests
- Digital multimeter for resistance and voltage checks
- Injector harness removal tools and valve cover gasket harness kit for diesel applications
- Battery load tester and charging system tester
- Wiring diagram for the IDM, PCM, and injector circuits



Reading P1316

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Ford): its meaning depends on the make.
- 3** Ignition system and misfire.
- 16** The exact fault within that area.

Often seen with

P1310 Igniter Circuit Malfunction No 3 · **P1312** Exhaust Temperature Sensor Malfunction · **P1312** Injection Pump Timing Actuator Circuit · **P1313** Misfire Rate Catalyst Damage Fault Bank 1 · **P1314** Misfire Rate Catalyst Damage Fault Bank 2 · **P1310** Ignition Coil 3 Primary Feedback Circuit · **P1310** Ignition Coil 3 Primary Feedback Circuit · **P1313** A Camshaft Position Plausibility

See it working

Watch the animated explainer [Excavator Simulator: Hydraulics You Can Operate](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1316/>

