

BMW · POWERTRAIN

P1349

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1349 · BMW

Misfire Cylinder 4 With Fuel Cut-off

P1349 on a BMW means the engine control module has detected a misfire on cylinder 4 severe enough to protect the catalytic converter by cutting fuel to that cylinder. The computer monitors crankshaft speed fluctuations and, once the misfire threshold is exceeded, disables the injector for cylinder 4 and stores this code.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	BMW specific	High	Intermediate	Ignition system and misfire

Symptoms you may notice

- The check engine light or service engine soon light is illuminated, often flashing while the misfire is active.
- The engine may run rough, shake, or feel down on power, especially under acceleration or load.
- A noticeable loss of power and reduced fuel economy because cylinder 4 is not contributing.
- The exhaust may smell of raw fuel or the catalytic converter may overheat if the misfire persists.
- In some cases there are no symptoms besides the warning light, particularly at light throttle or idle.
- The engine may enter limp mode or limit rpm to protect the catalytic converter.

Common causes, most likely first

- A worn or fouled spark plug in cylinder 4, especially on BMW engines with extended service intervals.
- A failed ignition coil for cylinder 4, a very common failure on BMW inline-six and V8 engines.
- A leaking or clogged fuel injector for cylinder 4, causing an incorrect air-fuel mixture.
- A vacuum leak near cylinder 4, such as a cracked intake manifold gasket or a deteriorated crankcase vent valve.
- Low compression in cylinder 4 from worn piston rings, a burned valve, or a failed head gasket.
- A faulty wiring harness or connector at the cylinder 4 ignition coil or injector.
- Mechanical valvetrain issues such as a worn camshaft lobe or a collapsed lifter on cylinder 4.



How to diagnose and fix it

- 1 Scan all stored codes and freeze-frame data, then record the misfire counters for each cylinder to confirm cylinder 4 is the only affected cylinder.
- 2 Inspect the cylinder 4 spark plug for wear, fouling, or incorrect gap, and replace it if it does not meet BMW specifications.
- 3 Swap the cylinder 4 ignition coil with a known-good coil from another cylinder and recheck misfire counters to see if the misfire moves.
- 4 Perform a fuel injector balance test or swap the cylinder 4 injector with another cylinder to check for a fuel delivery fault.
- 5 Check for vacuum leaks around the intake manifold and cylinder 4 intake port using a smoke machine or carburetor cleaner.
- 6 Run a compression test and, if low, a cylinder leak-down test on cylinder 4 to rule out mechanical faults.
- 7 Inspect the wiring and connectors at the cylinder 4 coil and injector for corrosion, chafing, or loose pins.

Why cylinder 4 misfires are often misdiagnosed

- A P1349 with fuel cut-off does not always mean the injector is faulty; BMW cuts fuel as a protective strategy, so the root cause is usually ignition or compression related.
- On many BMW engines, a failing crankcase vent valve or valve cover gasket can cause a vacuum leak that affects cylinder 4 more than others, setting this code without any ignition fault.
- Swapping coils and plugs is a quick diagnostic step, but technicians often forget to clear adaptations and recheck misfire counters after the repair, leading to a false return of the code.
- A flashing check engine light with P1349 means the misfire is actively damaging the catalytic converter, so driving even short distances can be expensive.
- Low fuel pressure or a restricted fuel filter can cause a lean misfire that affects cylinder 4 first on some BMW engines, so always verify fuel pressure before replacing ignition parts.

Can I keep driving with P1349?

Do not continue driving with an active P1349, especially if the check engine light is flashing, because unburned fuel can overheat and destroy the catalytic converter. If you must move the car, drive at low speed and light throttle directly to a repair shop, and avoid sustained highway speeds or heavy acceleration.

Tools that help

- OBD-II scan tool with live misfire counter and freeze-frame capability
- Digital multimeter for checking coil and injector circuits
- Compression tester and cylinder leak-down tester
- Spark plug socket and torque wrench
- Smoke machine for vacuum leak detection
- Fuel pressure gauge



Reading P1349

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

Often seen with

P1345 Ignition Coil Output Stage 3 Short To Ground · **P1346** Ignition Coil Power Output State 3 Short To B+ · **P1347** Bank 2 Crankshaft Camshaft Position Sensor Signal Out Of Seq · **P1345** VVT Sensor Circuit Malfunction Bank 1 · **P1346** VVT Sensor Range Performance Problem Bank 1 · **P1345** No CMP or SGC Signal · **P1345** No SGC Signal 1.6L · **P1345** Camshaft to Crankshaft Position Correlation Fault · **P1346** Intake Camshaft Position (CMP) Sensor System Performance · **P1345** CKP/CMP Correlation · **P1346** Intake Camshaft Position (CMP) Sensor System Performance · **P1345** Misfire Cylinder 2 With Fuel Cut-off · **P1346** Misfire During Start Cylinder 3 · **P1347** Misfire Cylinder 3 With Fuel Cut-off · **P0300** Random/Multiple Cylinder Misfire Detected · **P0304** Cylinder 4 Misfire Detected

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/bmw-p1349/>

