

BMW · POWERTRAIN

P1347

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1347 · BMW

## Misfire Cylinder 3 With Fuel Cut-off

P1347 on a BMW indicates that the engine control module (ECM) has detected a misfire on cylinder 3 and has responded by cutting off fuel delivery to that cylinder to protect the catalytic converter from unburned fuel. The ECM monitors crankshaft speed fluctuations to identify the misfire and then disables the fuel injector for that specific cylinder.

|            |              |          |                |                             |
|------------|--------------|----------|----------------|-----------------------------|
| SYSTEM     | CODE TYPE    | SEVERITY | FIX DIFFICULTY | AREA                        |
| Powertrain | BMW specific | Medium   | Intermediate   | Ignition system and misfire |

### Symptoms you may notice

- Illuminated check engine light, often flashing if the misfire is severe
- Noticeable engine shaking or rough idle, especially when cold
- Reduced engine power and poor acceleration
- Increased fuel consumption due to the cylinder being shut down
- Possible rotten egg smell from the exhaust if unburned fuel reaches the catalytic converter
- Often no symptoms besides the warning light if the misfire is intermittent or minor

### Common causes, most likely first

- 1 Faulty ignition coil on cylinder 3
- 2 Worn or fouled spark plug on cylinder 3
- 3 Failed fuel injector for cylinder 3 (clogged, leaking, or electrically open)
- 4 Vacuum leak at the intake manifold near cylinder 3
- 5 Mechanical issue such as low compression, worn camshaft lobe, or faulty lifter on cylinder 3
- 6 Damaged wiring or connector to the cylinder 3 ignition coil or injector
- 7 Contaminated fuel or fuel pressure problem affecting cylinder 3

### How to diagnose and fix it

- 1 Perform a visual inspection of the cylinder 3 ignition coil, spark plug, and injector connectors for damage or corrosion
- 2 Swap the ignition coil from cylinder 3 with another cylinder and see if the misfire moves, confirming coil failure
- 3 Remove and inspect the spark plug from cylinder 3 for wear, fouling, or incorrect gap; replace if necessary
- 4 Test the fuel injector for cylinder 3 with a noid light or multimeter to check for electrical signal and resistance
- 5 Run a compression test on cylinder 3 and compare with other cylinders to rule out mechanical problems
- 6 Check for vacuum leaks using a smoke machine or carburetor cleaner around the intake manifold
- 7 If all components test good, perform a fuel pressure and injector balance test to identify fuel delivery issues

## Before replacing the fuel injector

- A misfire code P1347 can be set by a simple vacuum leak at the intake manifold gasket, which is often overlooked because the leak affects multiple cylinders but may trigger the code on the weakest one first.
- BMW engines are known for ignition coil failures that can cause a misfire without setting a coil-specific code; swapping coils is a quick and free diagnostic step.
- The fuel cut-off is a protective strategy, so the injector itself may be functioning perfectly; the ECM has disabled it due to the misfire, not necessarily because the injector failed.
- A worn spark plug or incorrect gap can cause misfire under load only, so the code may not appear during idle; always test under load conditions.
- Low compression on cylinder 3 due to a faulty valve or piston ring can mimic an ignition or fuel issue, so a compression test is essential before replacing parts.

## Can I keep driving with P1347?

It is not advisable to drive with a flashing check engine light or severe misfire, as unburned fuel can overheat and damage the catalytic converter. If the light is steady and the misfire is mild, you may drive cautiously to a repair shop, but avoid hard acceleration and prolonged driving.

## Tools that help

- OBD-II scanner with live data capability
- Digital multimeter
- Compression tester
- Spark plug socket and wrench
- Noid light or injector tester
- Vacuum gauge or smoke machine

## Reading P1347

|           |                                                                    |
|-----------|--------------------------------------------------------------------|
| <b>P</b>  | Powertrain: engine, transmission and emissions.                    |
| <b>1</b>  | Manufacturer-specific code (BMW); its meaning depends on the make. |
| <b>3</b>  | Ignition system and misfire.                                       |
| <b>47</b> | The exact fault within that area.                                  |



## Often seen with

**P1349** Ignition Coil Power Output Stage 2 Open · **P1345** Ignition Coil Output Stage 3 Short To Ground · **P1348** Ignition Coil Power Output Stage 1 Open · **P1346** Ignition Coil Power Output State 3 Short To B+ · **P1349** VVT System · **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 · **P1349** Intake Camshaft Position System · **P1346** Intake Camshaft Position (CMP) Sensor System Performance · **P1346** Intake Camshaft Position (CMP) Sensor System Performance · **P1345** CKP/CMP Correlation · **P1348** Misfire During Start Cylinder 4 · **P1349** Misfire Cylinder 4 With Fuel Cut-off · **P1346** Misfire During Start Cylinder 3 · **P1345** Misfire Cylinder 2 With Fuel Cut-off · **P0303** Cylinder 3 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-p1347/>

