

BMW · POWERTRAIN

P1364

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1364 · BMW

Misfire During Start Cylinder 12

P1364 on a BMW indicates that the engine control module has detected a misfire specifically on cylinder 12 during the engine start sequence, based on abnormal crankshaft speed fluctuations. This code is stored when the misfire counter for cylinder 12 exceeds the threshold within the first few combustion cycles after cranking.

SYSTEM

Powertrain

CODE TYPE

BMW specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Ignition system
and misfire

Symptoms you may notice

- Rough idle or shaking immediately after starting the engine, especially when cold
- Noticeable vibration or hesitation during the first few seconds of running
- Check Engine Light illuminated, often without other driveability complaints once warm
- Occasional hard starting or extended cranking before the engine catches
- In some cases, no symptoms besides the warning light because the misfire is brief and only occurs during startup

Common causes, most likely first

- 1 Faulty ignition coil on cylinder 12 (most common on BMW V12 engines)
- 2 Worn or fouled spark plug on cylinder 12
- 3 Leaking or clogged fuel injector on cylinder 12
- 4 Vacuum leak at the intake manifold runner for cylinder 12
- 5 Low compression due to valve or piston ring wear on cylinder 12
- 6 Carbon tracking or damaged spark plug boot/connector
- 7 Engine control module software issue or faulty wiring to the coil/injector



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to confirm the misfire occurs only during startup
- 2 Perform a visual inspection of the ignition coil, spark plug, and injector connectors on cylinder 12 for damage or corrosion
- 3 Swap the ignition coil from cylinder 12 with a known-good coil from another cylinder and recheck for misfire migration
- 4 Remove and inspect the spark plug on cylinder 12 for wear, fouling, or incorrect gap; replace if necessary
- 5 Check fuel injector operation with a noid light or injector balance test; clean or replace if faulty
- 6 Perform a compression test and cylinder leak-down test on cylinder 12 to rule out mechanical issues
- 7 If all components test good, check for software updates or wiring faults to the ECM, and consult BMW service information for specific test plans

Cylinder 12 misfire traps on BMW V12 engines

- On BMW V12 engines (such as the M73 or N73), cylinder 12 is at the rear of the right bank and is often the first to suffer from heat-related coil failure, so a coil swap to another cylinder is a quick diagnostic step.
- A misfire that only occurs during the first few seconds of startup can be caused by a leaking injector that drips fuel into the cylinder after shutdown, fouling the plug until it clears; this is often missed because the plug looks fine after the engine runs.
- The code can be set by a marginal battery or slow cranking speed, which causes the ECM to misinterpret crankshaft speed fluctuations as a misfire; always check battery condition and cranking voltage before replacing parts.
- Vacuum leaks at the intake manifold gasket for cylinder 12 can cause a lean misfire only at startup when the engine is cold and fuel enrichment is active, and these leaks often seal as the engine warms up.
- Do not replace the ECM based solely on this code; wiring harness chafing near the right rear of the engine is a known issue that can cause intermittent coil or injector signals on cylinder 12.

Can I keep driving with P1364?

You can usually drive the car if the misfire is only present during startup and clears quickly, but avoid hard acceleration and prolonged idling until the fault is repaired. If the misfire persists or the Check Engine Light flashes, stop driving to prevent catalytic converter damage.



Tools that help

- OBD-II scan tool with BMW-specific software (e.g., ISTA or INPA)
- Digital multimeter
- Spark plug socket and torque wrench
- Compression tester
- Noid light or injector tester
- Basic hand tools (ratchet set, screwdrivers)

Reading P1364

P Powertrain: engine, transmission and emissions.

1 Manufacturer-specific code (BMW): its meaning depends on the make.

3 Ignition system and misfire.

64 The exact fault within that area.

Often seen with

P0300 Random/Multiple Cylinder Misfire Detected · **P0301** Cylinder 1 Misfire Detected · **P0302** Cylinder 2 Misfire Detected · **P0303** Cylinder 3 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-p1364/>

