

BMW · POWERTRAIN

P1355

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1355 · BMW

Misfire Cylinder 7 With Fuel Cut-off

P1355 on a BMW indicates that the engine control module (DME) has detected a misfire on cylinder 7 severe enough to protect the catalytic converter by cutting fuel delivery to that cylinder. The DME monitors crankshaft speed fluctuations and, when the misfire rate exceeds a threshold, it disables the fuel injector for that cylinder and stores this code.

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

Symptoms you may notice

- Illuminated check engine light, often accompanied by the electronic throttle warning or reduced power message
- Noticeable engine shaking or vibration, especially at idle or under light load
- Rough running and a distinct loss of power, as the engine is effectively running on seven cylinders
- A strong raw fuel smell from the exhaust if the misfire occurs before fuel cut-off is fully active
- Poor fuel economy and increased emissions
- Often no symptoms besides the warning light if the misfire is intermittent and only occurs under specific conditions

Common causes, most likely first

- 1 Worn or fouled spark plug on cylinder 7
- 2 Failed ignition coil on cylinder 7
- 3 Faulty fuel injector for cylinder 7 (clogged, leaking, or electrically open)
- 4 Vacuum leak at the intake manifold runner or gasket near cylinder 7
- 5 Mechanical issue such as low compression, worn valve guide, or failed hydraulic lifter on cylinder 7
- 6 Damaged wiring or connector to the cylinder 7 injector or coil
- 7 Carbon buildup on intake valves, common on direct-injection BMW engines, causing poor combustion



How to diagnose and fix it

- 1 Perform a visual inspection of the cylinder 7 ignition coil and spark plug, checking for oil or coolant contamination
- 2 Swap the ignition coil from cylinder 7 with a known-good cylinder and see if the misfire moves, confirming coil failure
- 3 Remove and inspect the spark plug for wear, gap, or fouling; replace if necessary
- 4 Check fuel injector operation with a noid light or scan tool injector balance test; listen for clicking and compare resistance
- 5 Run a compression test and cylinder leak-down test on cylinder 7 to rule out mechanical faults
- 6 Smoke-test the intake system for vacuum leaks, paying close attention to the intake runner for cylinder 7
- 7 Inspect the wiring harness and connector at the cylinder 7 injector and coil for chafing, corrosion, or loose pins

What BMW Technicians Check Before Replacing Parts

- A P1355 code often appears after spark plug replacement if the plug gap is incorrect or the coil connector is not fully seated, so always recheck recent work first.
- On BMW N54 and N55 engines, carbon buildup on intake valves can cause misfires that mimic injector failure, and a walnut blast may be needed even if the injector tests good.
- The fuel cut-off strategy means that once the code is set, cylinder 7 receives no fuel, so continuing to drive can wash down the cylinder wall and dilute the engine oil, leading to premature wear.
- A failing high-pressure fuel pump (HPFP) on direct-injection engines can cause lean misfires on multiple cylinders, but the DME may flag only one cylinder first, so check fuel pressure before condemning an injector.
- The misfire counter can be reset by disconnecting the battery, so always test-drive the vehicle under the same conditions that originally set the code before assuming the repair is successful.

Can I keep driving with P1355?

Do not continue driving with an active P1355 code because the fuel cut-off protects the catalytic converter but leaves cylinder 7 dry, which can cause scoring and oil contamination. If you must move the vehicle, keep the engine speed low and distance short, and avoid heavy acceleration or towing.

Tools that help

- OBD-II scan tool with BMW-specific software (e.g., INPA, ISTA, or Carly)
- Digital multimeter
- Compression tester
- Spark plug socket and torque wrench
- Noid light or injector balance tester
- Smoke machine for intake leaks



Reading P1355

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

Often seen with

P1354 Modulation Piston Displacement Sensor Circuit Malfunction · **P1356** Cylinder 1 Ignition Circuit Short To B+ · **P1354** VVT System Malfunction Bank 2 · **P1354** Ignition Coil C Primary Circuit · **P1354** IC Output High Pulse Detected When Grounded Cyl 4 · **P1356** IC Output High Pulse Detected When Grounded Cyl 6 · **P1354** Ignition Coil C Primary Circuit Fault · **P1356** Loss of Ignition Diagnostic Module Input to PCM · **P1354** IC Output High Pulse Detected When Grounded Cyl 4 · **P1356** IC Output High Pulse Detected When Grounded Cyl 6 · **P1354** Misfire During Start Cylinder 7 · **P1356** Misfire During Start Cylinder 8 · **P0171** System Too Lean (Bank 1) · **P0300** Random/Multiple Cylinder Misfire Detected · **P0307** Cylinder 7 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-p1355/>

