

BMW · POWERTRAIN

P1353

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1353 · BMW

Misfire Cylinder 6 With Fuel Cut-off

P1353 on a BMW means the engine control module (DME) has detected a misfire on cylinder 6 severe enough to trigger a fuel cut-off to that cylinder, protecting the catalytic converter from unburned fuel. The DME monitors crankshaft speed fluctuations and, when the misfire rate exceeds a calibrated threshold, disables the fuel injector for cylinder 6 and stores this code.

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

Symptoms you may notice

- Illumination of the check engine light, often flashing while the misfire is active
- Noticeable engine shaking or rough idle, especially when cold
- Reduced power and sluggish acceleration as the DME limits fuel to cylinder 6
- A distinct exhaust note or smell of unburned fuel from the tailpipe
- Often no symptoms besides the warning light if the misfire is intermittent or only occurs under specific load conditions

Common causes, most likely first

- 1 Worn or fouled spark plug on cylinder 6
- 2 Failed ignition coil for cylinder 6
- 3 Leaking or clogged fuel injector on cylinder 6
- 4 Vacuum leak at the intake manifold runner for cylinder 6
- 5 Mechanical fault such as low compression, worn valve guide, or failed hydraulic lifter on cylinder 6
- 6 Faulty crankshaft position sensor or damaged reluctor wheel causing false misfire detection
- 7 Wiring or connector issue at the cylinder 6 coil or injector harness



How to diagnose and fix it

- 1 Scan all stored and pending codes with a BMW-capable scan tool and record freeze-frame data for P1353
- 2 Perform a visual inspection of the cylinder 6 ignition coil, spark plug, and injector connectors for damage or corrosion
- 3 Swap the cylinder 6 ignition coil with a known-good coil from another cylinder and recheck misfire counters to see if the fault moves
- 4 Remove and inspect the cylinder 6 spark plug for wear, fouling, or incorrect gap; replace if necessary
- 5 Run a compression test and, if low, a cylinder leak-down test on cylinder 6 to rule out mechanical failure
- 6 Check fuel injector operation with a noid light or injector balance test; clean or replace the injector if faulty
- 7 Inspect intake manifold gaskets and vacuum lines near cylinder 6 for leaks using a smoke machine

What BMW Technicians Check Before Replacing Parts

- A flashing check engine light with P1353 means the misfire is actively dumping fuel into the exhaust, which can melt the catalytic converter in minutes; stop driving immediately if the light flashes.
BMW's DME often sets P1353 alongside P0306 and P1345; if multiple misfire codes are present, address the root cause such as a vacuum leak or fuel pressure issue rather than replacing every coil.
- A misfire that only appears when the engine is cold frequently points to a leaking injector or carbon buildup on the intake valves, a common issue on direct-injected BMW engines.
- Swapping the coil and plug to another cylinder is the fastest way to confirm whether the fault follows the component or stays with cylinder 6, saving unnecessary parts replacement.
The fuel cut-off strategy means the injector for cylinder 6 is disabled while the code is active, so a noid light test may show no pulse even on a good injector until the code is cleared and the engine is restarted.

Can I keep driving with P1353?

Do not continue driving if the check engine light is flashing or the engine is visibly shaking, as raw fuel can destroy the catalytic converter and cause costly damage. If the light is steady and the car runs smoothly, you may drive cautiously to a repair shop, but avoid heavy acceleration and prolonged idling.

Tools that help

- BMW-capable OBD-II scan tool with live misfire data
- Spark plug socket and torque wrench
- Compression tester
- Noid light or injector test kit
- Smoke machine for vacuum leak detection
- Digital multimeter for harness checks



Reading P1353

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

Often seen with

P1345 Ignition Coil Output Stage 3 Short To Ground · **P1345** VVT Sensor Circuit Malfunction Bank 1 · **P1351** VVT Sensor Range Performance Problem Bank 2 · **P1352** Needle Lift Sensor · **P1351** Injection Sensor Circuit · **P1352** Ignition Coil A Primary Circuit · **P1345** No CMP or SGC Signal · **P1351** Ignition Diagnostic Monitor Signal Lost To PCM Or Out Of Ran · **P1345** No SGC Signal 1.6L · **P1352** IC Output High Pulse Detected When Grounded Cyl 2 · **P1345** Camshaft to Crankshaft Position Correlation Fault · **P1351** Ignition Control Circuit Voltage High · **P1351** Ignition Diagnostic Monitor Circuit Input Fault · **P1352** Ignition Coil A Primary Circuit Fault · **P1351** IC Circuit High Voltage · **P1352** IC Output High Pulse Detected When Grounded Cyl 2 · **P1345** CKP/CMP Correlation · **P1352** Misfire During Start Cylinder 6 · **P1351** Misfire Cylinder 5 With Fuel Cut-off · **P1345** Misfire Cylinder 2 With Fuel Cut-off · **P0300** Random/Multiple Cylinder Misfire Detected · **P0306** Cylinder 6 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-p1353/>

