

GM · POWERTRAIN

P1364

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1364 · GM

IC Cylinder 4 Not Toggling After Enable

P1364 on a GM vehicle means the powertrain control module (PCM) commanded the ignition control (IC) circuit for cylinder 4 to switch states after enable, but the feedback voltage on that circuit never changed as expected. The PCM monitors the IC output and flags this code when cylinder 4 fails to toggle, indicating an open, shorted, or high-resistance fault in the circuit or a failed ignition coil/module driver.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	GM specific	Medium	Intermediate	Ignition system and misfire

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Rough idle or misfire felt as a shake or stumble, especially when cold
- Reduced engine power or hesitation during acceleration
- Slight decrease in fuel economy over time
- In some cases, the engine may stall or be hard to start if the fault affects multiple cylinders

Common causes, most likely first

- 1 Faulty ignition coil or ignition control module for cylinder 4
- 2 Open or shorted wire in the IC circuit between the PCM and the coil/module
- 3 Corroded or loose electrical connector at the coil, module, or PCM
- 4 Failed PCM driver for the cylinder 4 IC circuit (rare but possible)
- 5 Aftermarket alarm or remote start wiring tapped into the IC circuit causing interference
- 6 Engine mechanical issue (e.g., bad spark plug, low compression) that prevents the coil from toggling correctly, though this is less common for a circuit-specific code



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to confirm the fault conditions.
- 2 Inspect the ignition coil and connector for cylinder 4 for corrosion, loose pins, or damaged wiring; repair or replace as needed.
- 3 Use a digital multimeter to check resistance and continuity of the IC circuit from the PCM connector to the coil/module connector; compare to service information specifications.
- 4 Swap the ignition coil from cylinder 4 with a known-good coil from another cylinder and clear the code; if the misfire moves, the coil is faulty.
- 5 Check for aftermarket accessories wired into the IC circuit and remove or repair any splices that could cause interference.
- 6 If the circuit and coil test good, perform a wiggle test on the harness while monitoring the IC circuit with a lab scope or scan tool to detect intermittent opens.
- 7 As a last resort, verify PCM operation by checking for proper driver output on the IC circuit with a scope; replace the PCM only if all other possibilities are ruled out.

Why cylinder 4 IC codes get misdiagnosed

- A P1364 can be set by a faulty ignition coil that still fires but has a degraded driver circuit, so a simple spark test may not reveal the problem.
- Corrosion inside the coil connector boot is a common cause that is easily overlooked during visual inspection because the pins look clean from the outside.
- The PCM may set this code only after the engine reaches a certain temperature or run time, so intermittent faults often require a test drive with a scan tool recording live data.
- Aftermarket remote starters or alarm systems that tap into ignition wiring can back-feed the IC circuit and cause false toggling codes, especially if the installation was poorly done.
- A weak battery or poor ground connection can cause voltage spikes that mimic a failed IC driver, so always check charging system and grounds before condemning the PCM.

Can I keep driving with P1364?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration or towing because a persistent misfire can overheat the catalytic converter. If the check engine light is flashing or the engine runs very rough, stop driving and have it towed to prevent damage.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with back-probing pins
- Lab scope for intermittent signal testing
- Wire terminal removal tools and electrical contact cleaner
- Service information for wiring diagrams and circuit specifications



Reading P1364

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

Often seen with

P1363 Cylinder 3 Ignition Circuit Short To Ground · **P1362** Cylinder 3 Ignition Circuit Short To B+ · **P1361** Cylinder 3 Ignition Circuit Open · **P1362** TDC1 Sensor No Signal · **P1361** TDC Sensor Intermittent Interruption · **P1361** Ignition Coil B Secondary Circuit · **P1362** Ignition Coil C Secondary Circuit · **P1361** Ignition Coil Cylinder 1 No Activation · **P1363** Ignition Coil Cylinder 3 No Activation · **P1362** Ignition Coil Cylinder 2 No Activation · **P1361** TDC Sensor Intermittent Interruption · **P1362** TDC1 Sensor No Signal · **P1361** IC Circuit Low Voltage · **P1363** IC Cylinder 3 Not Toggling After Enable · **P1362** IC Cylinder 2 Not Toggling After Enable · **P1362** Ignition Coil C Secondary Circuit Malfunction · **P1363** Ignition Coil D Secondary Circuit Malfunction · **P1361** Ignition Control IC Circuit Low Voltage · **P1362** IC Cylinder 2 Not Toggling After Enable · **P1363** IC Cylinder 3 Not Toggling After Enable · **P1361** IC Circuit Low Voltage · **P1362** Misfire During Start Cylinder 11 · **P1363** Misfire Cylinder 11 With Fuel Cut-off · **P1361** Misfire Cylinder 10 With Fuel Cut-off · **P0304** Cylinder 4 Misfire Detected · **P0354** Ignition Coil D Primary/Secondary Circuit Malfunction

See it working

Watch the animated explainer [How Coil-on-Plug Ignition Works: Coil and Spark Plug](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/gm-p1364/>

