

GM · POWERTRAIN

P1352

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1352 · GM

IC Output High Pulse Detected When Grounded Cyl 2

P1352 on a GM vehicle means the ignition control module (ICM) has detected an unexpected high voltage pulse on the cylinder 2 ignition control circuit while that circuit is supposed to be grounded. The computer commanded the coil for cylinder 2 to fire, but the feedback signal showed the circuit stayed high when it should have been pulled low, indicating a fault in the ignition coil, wiring, or ICM itself.

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

Symptoms you may notice

- Engine misfire, often felt as a shake or stumble, especially under load or acceleration
- Rough idle quality with noticeable vibration through the steering wheel or seat
- Illuminated check engine light, sometimes flashing if the misfire is severe
- Reduced fuel economy and a noticeable loss of power
- Often no symptoms besides the warning light, particularly if the misfire is intermittent
- Possible difficulty starting or a stall immediately after startup in severe cases

Common causes, most likely first

- 1 Faulty ignition coil for cylinder 2, internally shorted or with excessive resistance
- 2 Damaged or chafed wiring between the ICM and the cylinder 2 coil, including a short to voltage
- 3 Corroded or loose connector pins at the ICM or coil harness
- 4 Failed ignition control module (ICM) driver circuit for cylinder 2
- 5 Faulty spark plug or spark plug boot causing abnormal coil feedback
- 6 Poor engine ground or ICM ground connection causing erratic signal behavior



How to diagnose and fix it

- 1 Inspect the cylinder 2 spark plug and boot for wear, carbon tracking, or damage, and replace if needed
- 2 Check the ignition coil for cylinder 2 by swapping it with a known-good coil from another cylinder and seeing if the code moves
- 3 Visually inspect the harness and connectors between the ICM and the cylinder 2 coil for chafing, corrosion, or loose pins
- 4 Use a multimeter to check for continuity and shorts to voltage on the cylinder 2 ignition control circuit while wiggling the harness
- 5 Verify the ICM ground circuit is clean and tight, and measure voltage drop across the ground connection
- 6 If wiring and coil test good, test the ICM output signal with an oscilloscope or replace the ICM with a known-good unit
- 7 Clear the code and perform a road test to confirm the repair, monitoring misfire counters if available

Before you replace the ignition control module

- A swapped coil that moves the misfire to another cylinder is the fastest way to rule out the ICM, yet many technicians replace the module first and waste money.
- The code can be set by a spark plug with a cracked insulator that causes the coil to feedback a high pulse, so always inspect plugs before condemning the coil or ICM.
- Intermittent P1352 often traces to a chafed wire near the exhaust manifold or a corroded connector that only acts up when hot or wet, so wiggle-test the harness while watching live misfire data.
- On some GM engines, a failing ignition control module can set P1352 for cylinder 2 even when the coil and wiring are perfect, but the module should be the last suspect after all circuit tests pass.
- This code does not always mean the engine is misfiring at that moment; a stored history code can be left over from a previous event, so check for pending or active status before tearing into the ignition system.

Can I keep driving with P1352?

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, stop driving and have the vehicle towed to prevent converter damage.

Tools that help

- OBD-II scan tool with live misfire data
- Digital multimeter
- Spark plug socket and ratchet
- Oscilloscope (optional for signal testing)
- Wire terminal pick and electrical contact cleaner



Reading P1352

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

Often seen with

P1351 VVT Sensor Range Performance Problem Bank 2 · **P1351** Injection Sensor Circuit · **P1351** Ignition Diagnostic Monitor Signal Lost To PCM Or Out Of Ran · **P1353** Ignition Coil B Primary Circuit · **P1351** Ignition Control Circuit Voltage High · **P1353** IC Output High Pulse Detected When Grounded Cyl 3 · **P1351** Ignition Diagnostic Monitor Circuit Input Fault · **P1353** Ignition Coil B Primary Circuit Fault · **P1351** IC Circuit High Voltage · **P1353** IC Output High Pulse Detected When Grounded Cyl 3 · **P1351** Misfire Cylinder 5 With Fuel Cut-off · **P1353** Misfire Cylinder 6 With Fuel Cut-off · **P0300** Random/Multiple Cylinder Misfire Detected · **P0302** Cylinder 2 Misfire Detected · **P0352** Ignition Coil B Primary/Secondary Circuit Malfunction

See it working

Watch the animated explainer [How a Jet Engine Works: Two-Spool Turbofan](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/gm-p1352/>

