

CHRYSLER · POWERTRAIN

P1371

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1371 · Chrysler

DI Low Resolution Circuit

P1371 on Chrysler vehicles means the powertrain control module (PCM) has detected a problem with the low-resolution signal from the ignition distributor's internal sensor, which the computer uses to identify cylinder position for fuel injection and spark timing. The PCM compares this low-resolution signal against the camshaft and crankshaft sensor inputs and sets the code when the expected pulse pattern is missing, erratic, or out of sequence.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Ignition system and misfire

Symptoms you may notice

- The check engine light is on, and in many cases there are no other noticeable symptoms besides the warning light
- The engine may crank but fail to start, or it may start and then stall shortly after
- Intermittent misfiring or a rough idle that comes and goes, especially when the engine is hot
- A sudden loss of power or hesitation during acceleration
- The engine may stall unexpectedly while driving or when coming to a stop
- A no-start condition that occurs only after the vehicle has been driven and then restarted while warm

Common causes, most likely first

- 1 Faulty or contaminated low-resolution sensor inside the distributor assembly
- 2 Worn or damaged distributor drive gear or excessive play in the distributor shaft
- 3 Damaged, chafed, or corroded wiring between the distributor sensor and the PCM
- 4 Loose or corroded electrical connector pins at the distributor or PCM
- 5 Failed or failing camshaft position sensor or crankshaft position sensor causing a synchronization mismatch
- 6 Moisture or oil intrusion inside the distributor housing affecting the sensor signal
- 7 PCM internal fault on the low-resolution signal input circuit (rare, but possible after all other causes are ruled out)



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P1371, then check for related camshaft and crankshaft sensor codes before touching any parts
- 2 Inspect the distributor cap, rotor, and housing for moisture, oil, carbon tracking, or physical damage
- 3 Disconnect the distributor connector and check for bent pins, corrosion, or pushed-back terminals; wiggle-test the harness while watching live data
- 4 Measure the low-resolution sensor signal with an oscilloscope or a graphing multimeter at the PCM connector while cranking, looking for a clean square wave with correct amplitude
- 5 Check the distributor shaft for excessive end play and inspect the drive gear for worn teeth
- 6 Substitute a known-good distributor or sensor only after signal testing confirms the fault is inside the distributor
- 7 Clear the code and perform a road test with live data monitoring to confirm the low-resolution signal remains stable through all engine speeds and temperatures

What the low-resolution signal really does

- The low-resolution sensor in the distributor is often called the Hall-effect or sync sensor, and it provides one pulse per camshaft revolution so the PCM knows which cylinder is on the compression stroke; without it, the PCM cannot sequence fuel injection correctly.
- A common misdiagnosis is replacing the camshaft or crankshaft sensor when the actual fault is a worn distributor drive gear that changes the timing relationship between the low-resolution signal and the crankshaft signal.
- Oil leaking past the distributor shaft seal can contaminate the low-resolution sensor and cause an intermittent signal that only sets the code after the engine reaches operating temperature.
- Chrysler distributors on older 2.0L, 2.4L, and 3.0L engines are known for the low-resolution sensor pick-up coil failing internally, and the fault often does not appear until the engine is hot or under load.
- A weak battery or poor ground can cause the PCM to misread the low-resolution signal, so always verify battery voltage and ground integrity before condemning the distributor.

Can I keep driving with P1371?

You can drive short distances to a repair shop if the engine runs normally and the light is steady, but avoid long trips, heavy loads, and high speeds because a sudden stall or no-start can leave you stranded. If the engine is misfiring, stalling, or cranking without starting, stop driving and arrange a tow.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with graphing or oscilloscope function
- Test light or logic probe
- Basic hand tools including socket set and Torx bits
- Distributor wrench or appropriate swivel socket
- Electrical contact cleaner and dielectric grease

Reading P1371

P Powertrain: engine, transmission and emissions.

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

3 Ignition system and misfire.

71 The exact fault within that area.

Often seen with

P1372 Cylinder 6 Ignition Circuit Short To Ground · **P1391** CMP Sensor Bank 2 Short To Ground · **P1391** Intermittent Loss Of CMP Or CKP Sensor Signals · **P1372** Ignition Coil Cylinder 2 Early Activation Fault · **P1372** Crankshaft Position Sensor Circuit Performance · **P1391** Wheel Speed Sensor 1 G-Sensor Circuit Performance · **P1391** Glow Plug Circuit Low Input Bank 1 · **P1372** Crankshaft Position Sensor Circuit Performance · **P1391** Intermittent Loss of CMP Or CKP · **P0320** Ignition/Distributor Engine Speed Input Circuit · **P0335** Crankshaft Position Sensor A Circuit Malfunction · **P0340** Camshaft Position Sensor A Circuit Malfunction (Bank 1)

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/chrysler-p1371/>

