

GENERIC · POWERTRAIN

P0379

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0379

Timing Reference High Resolution Signal 'B' No Pulses

P0379 means the engine control module (ECM) is not receiving any pulses from the 'B' high-resolution timing reference signal, which is a secondary crank or cam position input used for precise fuel and ignition timing. The ECM has detected a complete loss of pulses on that circuit, so it cannot verify the exact rotational position of the engine from that source.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Ignition system and misfire

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Engine may crank but fail to start or start after a long crank
- Rough running, misfiring, or stalling at idle or under load
- Reduced engine power or limp mode due to lost timing reference
- Intermittent no-start that may clear after the engine cools or wiring is disturbed

Common causes, most likely first

- 1 Failed 'B' timing reference sensor (crankshaft or camshaft position sensor) due to internal open circuit or heat damage
- 2 Damaged or chafed wiring in the sensor harness, especially near hot exhaust components or sharp brackets
- 3 Corroded, loose, or backed-out pins at the sensor connector or ECM connector
- 4 Missing or damaged reluctor wheel teeth or a loose tone ring on the crank or cam sprocket
- 5 Excessive air gap between the sensor tip and the reluctor wheel caused by wear or incorrect installation
- 6 Electrical interference or a short to ground or power on the signal circuit
- 7 ECM internal fault on the timing reference input circuit, though this is less common



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, then record freeze-frame data to confirm when P0379 sets
- 2 Visually inspect the 'B' sensor, its connector, and the reluctor wheel for physical damage, debris, or loose mounting
- 3 Measure sensor resistance and compare to the manufacturer's specification, then check for an open or short in the harness
- 4 Back-probe the signal wire at the ECM and crank the engine to look for a pulsed voltage or AC waveform with a multimeter or oscilloscope
- 5 Check for a short to ground or power on the signal circuit with the sensor disconnected and the key on
- 6 If wiring and sensor test good, substitute a known-good sensor and clear codes to see if the fault returns
- 7 If the code persists with a verified good sensor and wiring, perform a crankshaft variation learn or relearn procedure and inspect the ECM connectors before condemning the ECM

What the 'B' Signal Really Tells You

- Many vehicles use the 'B' high-resolution signal as a backup or fine-timing input, so a failed sensor may not prevent the engine from running on the primary crank signal alone.
- A common misdiagnosis is replacing the sensor when the real fault is a damaged reluctor wheel or a loose tone ring that has shifted and changed the air gap.
- Heat and oil contamination can cause the sensor to fail only when hot, so a cold resistance check may pass while the code sets after the engine reaches operating temperature.
- Aftermarket sensors with incorrect resistance or air-gap tolerances frequently set this code even when the original sensor was not the root cause.
- A weak battery or poor engine ground can cause a no-pulse condition on the signal circuit, so always verify supply voltage and ground integrity before replacing parts.

Can I keep driving with P0379?

If the engine starts and runs without misfire or stalling, you can drive cautiously to a repair shop, but avoid heavy acceleration and long trips. If the engine cranks without starting or stalls repeatedly, stop driving and have the vehicle towed to prevent safety risk and further damage.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with resistance, voltage, and frequency functions
- Oscilloscope for viewing the timing signal waveform
- Basic hand tools and socket set for sensor and connector access
- Feeler gauges for checking sensor air gap where specified
- Wiring diagram and manufacturer service information for circuit testing



Reading P0379

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 3** Ignition system and misfire.
- 79** The exact fault within that area.

Often seen with

P0335 Crankshaft Position Sensor A Circuit Malfunction · **P0336** Crankshaft Position Sensor A Circuit Range/Performance · **P0340** Camshaft Position Sensor A Circuit Malfunction (Bank 1) · **P0341** Camshaft Position Sensor A Circuit Range/Performance · **P0378** Timing Reference High Resolution Signal 'B' Intermittent/Err

See it working

Watch the animated explainer [How Hydraulic Brakes Work: Pedal to Caliper](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0379/>

