

GENERIC · POWERTRAIN

P2005

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2005

Intake Manifold Runner Control Stuck Open (Bank 2)

P2005 indicates that the powertrain control module has detected a fault in the intake manifold runner control system for bank 2, specifically that the runner flaps are stuck in the open position when they should be closed or modulating. The computer commands the actuator to move the flaps and then monitors the position sensor or expected airflow change, and it sets this code when the response does not match the commanded state.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough or unstable idle, especially when the engine is cold
- Reduced low-end torque and sluggish acceleration from a stop
- Poor fuel economy during city driving or light-load conditions
- Occasional hesitation or stumble on light acceleration
- In some cases, a slight whistling or rattling noise from the intake manifold area

Common causes, most likely first

- 1 Carbon buildup or sludge on the intake manifold runner flaps causing them to stick open
- 2 Failed or disconnected intake manifold runner control actuator (vacuum or electric motor)
- 3 Broken or disconnected linkage between the actuator and the runner flaps
- 4 Damaged or leaking vacuum supply hose to the actuator (on vacuum-operated systems)
- 5 Faulty intake manifold runner position sensor or a wiring issue in its circuit
- 6 Corroded or damaged electrical connector at the actuator or sensor
- 7 Rarely, a mechanical failure inside the intake manifold such as a broken flap shaft



How to diagnose and fix it

- 1 Connect a scan tool and command the runner control actuator through its full range while watching the position sensor data to confirm the flaps move freely or stick
- 2 Visually inspect the actuator linkage, vacuum hoses, and electrical connectors for obvious damage, disconnection, or leaks
- 3 Remove the intake manifold or runner control module and clean the flaps and bore with intake-safe carbon cleaner to free any sticking
- 4 Test the actuator with a hand vacuum pump or direct power to verify it extends and retracts smoothly
- 5 Check the position sensor signal voltage with a multimeter while moving the flaps by hand to rule out a dead spot or wiring fault
- 6 Replace the actuator, linkage, or sensor as needed if cleaning does not resolve the sticking condition
- 7 Clear the code and perform a drive cycle to verify the repair and confirm the monitor runs without resetting the fault

Carbon sticking is the usual culprit

- On many engines, the runner flaps accumulate carbon and begin to stick open long before the actuator fails, so cleaning the intake tract often fixes the code without any new parts.
- A vacuum-operated actuator can appear fine at idle but leak only when the engine is under load, so always test the vacuum supply with a gauge while revving the engine.
- The position sensor circuit is a common misdiagnosis trap: a chafed wire or corroded connector can mimic a stuck actuator, so check voltage drops and grounds before condemning the actuator.
- This code does not always mean the flaps are physically stuck open; a faulty actuator that fails to return to the closed position will set the same code because the computer only sees the final position.
- Bank 2 refers to the side of the engine that does not contain cylinder number one, so on V6 and V8 engines confirm you are working on the correct bank before ordering parts.

Can I keep driving with P2005?

You can usually continue driving with this code because the engine remains driveable, but expect reduced low-end power and slightly worse fuel economy. Avoid heavy towing or aggressive acceleration until the fault is repaired, and address it promptly to prevent carbon buildup from worsening or damaging the actuator.

Tools that help

- OBD-II scan tool with bidirectional control capability
- Hand vacuum pump with gauge
- Digital multimeter
- Intake-safe carbon cleaner
- Basic socket and wrench set
- Flashlight or inspection mirror



Reading P2005

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 0** Fuel and air metering and auxiliary emission controls.
- 05** The exact fault within that area.

Often seen with

P2004 Intake Manifold Runner Control Stuck Open (Bank 1) · **P2006** Intake Manifold Runner Control Stuck Closed (Bank 1) · **P2007** Intake Manifold Runner Control Stuck Closed (Bank 2) · **P2008** Intake Manifold Runner Control Circuit/Open (Bank 1) · **P2015** Intake Manifold Runner Position Sensor/Switch Circuit Range/

See it working

Watch the animated explainer [How Variable Valve Timing Works: Cam Phaser and VVT Solenoid](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2005/>

