

GENERIC · POWERTRAIN

P2011

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2011

Intake Manifold Runner Control Circuit/Open (Bank 2)

P2011 indicates that the powertrain control module (PCM) has detected an open circuit or excessive resistance in the intake manifold runner control (IMRC) circuit for bank 2. The IMRC system uses a motor or solenoid to adjust intake runner flaps, and the PCM monitors the circuit for expected voltage or current; when the signal falls outside the normal range, this code is stored.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other symptoms
- Reduced engine performance, especially at low RPM or during acceleration
- Rough idle or stumbling when the engine is cold
- Poor fuel economy due to incorrect intake airflow tuning
- Hesitation or flat spot during light throttle application
- In rare cases, a noticeable loss of power at higher engine speeds

Common causes, most likely first

- 1 Broken, chafed, or disconnected wiring in the bank 2 IMRC circuit
- 2 Corroded or loose electrical connector at the IMRC actuator or solenoid
- 3 Failed IMRC actuator or solenoid (open coil or mechanical binding)
- 4 Intake manifold runner flaps stuck due to carbon buildup or mechanical damage
- 5 Faulty PCM driver for the IMRC circuit (less common)
- 6 Open fuse or relay supplying power to the IMRC system (if applicable)



How to diagnose and fix it

- 1 Perform a visual inspection of the bank 2 IMRC actuator, connector, and wiring for damage or corrosion
- 2 Use a scan tool to command the IMRC actuator and observe for movement and circuit response
- 3 Measure resistance of the IMRC actuator or solenoid and compare to manufacturer specifications
- 4 Check for power and ground at the actuator connector with the key on and during command
- 5 Test continuity and resistance of the signal and ground wires between the actuator and PCM
- 6 If wiring and actuator test good, inspect the intake manifold runner flaps for binding or carbon buildup
- 7 Replace the faulty IMRC actuator, repair wiring, or clean the intake manifold as needed, then clear codes and verify

What a P2011 often hides

- A stuck or carbon-fouled intake runner flap can mimic an electrical open circuit because the actuator motor draws excessive current or fails to reach its commanded position, setting the code even when wiring is intact.
- Some vehicles use a single IMRC actuator for both banks; a failure on bank 2 may actually be a shared component or vacuum supply issue that affects both sides.
- The PCM may set P2011 only after a cold start when it runs an IMRC self-test, so intermittent faults can be missed if the vehicle is already warm.
- Corrosion inside the actuator connector is a frequent cause that visual inspection from outside may not reveal; disconnecting and inspecting the pins is essential.
- After repairs, the IMRC system may require a relearn or adaptation procedure with a scan tool before the code will clear and stay off.

Can I keep driving with P2011?

The vehicle is generally safe to drive with P2011, but you may experience reduced performance and fuel economy. Avoid heavy acceleration or towing until the fault is repaired, and address the code promptly to prevent potential damage to the intake system.

Tools that help

- OBD-II scan tool with bidirectional control
- Digital multimeter
- Wire probe set
- Socket and ratchet set
- Torque wrench
- Manufacturer service information for circuit specs



Reading P2011

- 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.
- 11** The exact fault within that area.

Often seen with

P2004 Intake Manifold Runner Control Stuck Open (Bank 1) · **P2005** Intake Manifold Runner Control Stuck Open (Bank 2) · **P2006** Intake Manifold Runner Control Stuck Closed (Bank 1) · **P2007** Intake Manifold Runner Control Stuck Closed (Bank 2) · **P2010** Intake Manifold Runner Control Circuit High (Bank 1)

See it working

Watch the animated explainer [Turbocharger Trainer: Boost, Wastegate and Intercooler](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2011/>

