

FORD · POWERTRAIN

P1518

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1518 · Ford

Intake Manifold Runner Control Fault Stuck Open

P1518 on Ford vehicles means the powertrain control module (PCM) commanded the intake manifold runner control (IMRC) to move, but the runner position sensor or monitor circuit indicated the runners stayed open when they should have closed. The computer detected a mismatch between the commanded IMRC state and the actual runner position, which affects low-speed airflow and torque.

SYSTEM

Powertrain

CODE TYPE

Ford specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Vehicle speed, idle control and auxiliary inputs

Symptoms you may notice

- Illumination of the check engine light, often with no other symptoms besides the warning light
- A slight hesitation or stumble during light-throttle acceleration at low engine speeds
- Reduced low-end torque and sluggish response below roughly 3,000 rpm
- Rough or unstable idle quality on some engines
- A noticeable change in intake sound or a rattle from the intake manifold area on engines with vacuum-operated IMRC
- Poor fuel economy during city driving compared with normal operation

Common causes, most likely first

- 1 Carbon buildup or sludge on the intake manifold runner flaps or linkage, preventing them from closing fully
- 2 Failed IMRC actuator, either the vacuum diaphragm or the electric motor, that cannot move the runners to the closed position
- 3 Broken, disconnected, or leaking vacuum hose feeding a vacuum-operated IMRC actuator
- 4 Faulty intake manifold runner position sensor or a damaged sensor connector
- 5 Open or shorted wiring in the IMRC control or sensor circuit, including chafed harness near the intake
- 6 Stuck or binding runner shaft bushings or a broken return spring in the intake manifold
- 7 Rarely, a PCM internal driver fault that cannot command the IMRC actuator correctly



How to diagnose and fix it

- 1 Connect a scan tool and confirm P1518 is the only IMRC-related code, then command the IMRC open and closed while watching the runner position sensor reading to verify the fault is present
- 2 Inspect the IMRC actuator linkage, vacuum hoses, and electrical connector for obvious damage, disconnection, or leaks before replacing any parts
- 3 Remove the intake manifold or runner control assembly as needed and clean carbon deposits from the runner flaps, shafts, and linkage so they move freely through their full travel
- 4 Test the IMRC actuator with a hand vacuum pump on vacuum-operated systems or with a bidirectional scan tool on electric systems to confirm it strokes fully and holds position
- 5 Check the runner position sensor signal voltage with a multimeter or oscilloscope through the full sweep to rule out a dead spot or incorrect reference voltage
- 6 Perform a wiggle test on the IMRC harness and connector while monitoring sensor data to expose intermittent wiring faults
- 7 If all mechanical and electrical checks pass, verify the PCM can drive the actuator circuit and replace the PCM only as a last resort after confirming power and ground integrity

What Ford techs check before replacing the IMRC

- Carbon fouling on the runner flaps is the most common cause on high-mileage Ford engines, and a full intake cleaning often fixes P1518 without any new parts.
- A vacuum-operated IMRC that stays open can be caused by a leaking actuator diaphragm that holds vacuum only intermittently, so test with a gauge while the engine is running and off.
- The runner position sensor can read correctly at idle and fail only during the commanded sweep, so a static scan tool reading is not enough to clear the circuit.
- P1518 does not always mean the actuator is dead; a binding runner shaft or a missing return spring can hold the runners open even when the actuator and sensor are good.
- On some Ford engines the IMRC shares a fuse or ground with other intake components, so a blown fuse can set P1518 along with unrelated codes that point away from the real fault.

Can I keep driving with P1518?

You can usually drive the vehicle with P1518 because the engine remains drivable, but expect reduced low-end torque and slightly worse fuel economy. Avoid heavy towing or sustained full-throttle acceleration until the fault is repaired, and have it diagnosed soon to prevent carbon buildup from worsening.



Tools that help

- OBD-II scan tool with bidirectional control and live data
- Hand vacuum pump with gauge
- Digital multimeter
- Socket and wrench set
- Carburetor and intake cleaner
- Inspection mirror and flashlight

Reading P1518

P	Powertrain: engine, transmission and emissions.
1	Manufacturer-specific code (Ford): its meaning depends on the make.
5	Vehicle speed, idle control and auxiliary inputs.
18	The exact fault within that area.

Often seen with

P1520 Intake Manifold Changeover Valve 2 Circuit Open · **P1519** Intake Camshaft Control Bank 1 Malfunction · **P1520** Stop Lamp Switch Signal Malfunction · **P1520** Radiator Fan Relay 1 Circuit High Input · **P1519** IAC Valve Circuit Failure · **P1520** Cruise Control Switch S40 · **P1519** IAC Valve Circuit Failure · **P1519** Electronic Throttle Module Low Volts Communication Disable · **P1520** Gear Indicator System · **P1519** Intake Manifold Runner Control Stuck Open · **P1520** Intake Manifold Runner Control Circuit Fault · **P1519** Electronic Throttle Module Low Volts Communication Disable · **P1520** Gear Indicator System · **P1519** A Camshaft Position Actuator Bank 1 · **P1520** B Camshaft Position Actuator Bank 1 · **P0171** System Too Lean (Bank 1) · **P2004** Intake Manifold Runner Control Stuck Open (Bank 1) · **P2005** Intake Manifold Runner Control Stuck Open (Bank 2)

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/ford-p1518/>

