

VOLKSWAGEN · POWERTRAIN

P1511

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1511 · Volkswagen

Intake Manifold Changeover Valve Circuit Electrical Malfunction

P1511 on Volkswagen vehicles indicates that the engine control module (ECM) has detected an electrical fault in the intake manifold changeover valve circuit, which controls a flap that alters intake runner length for better low-end torque and high-rpm power. The ECM monitors the circuit for expected voltage or current and sets the code when the signal is out of range, often due to an open, short, or faulty valve.

SYSTEM

Powertrain

CODE TYPE

Volkswagen
specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Vehicle speed,
idle control and
auxiliary inputs

Symptoms you may notice

- Illuminated check engine light (malfunction indicator lamp) on the dashboard.
- Often no symptoms besides the warning light, especially if the flap fails in the open position.
- Slight hesitation or stumble during acceleration, particularly at lower engine speeds.
- Reduced engine power or sluggish performance at certain RPM ranges.
- Rough idle or unstable idle quality in some cases.
- Poor fuel economy if the flap remains stuck in the wrong position.

Common causes, most likely first

- 1 Failed intake manifold changeover valve (solenoid or vacuum actuator) due to electrical winding failure or mechanical seizure.
- 2 Damaged or corroded wiring harness connector at the changeover valve.
- 3 Open or short circuit in the wiring between the ECM and the changeover valve.
- 4 Blown fuse or faulty relay supplying power to the changeover valve circuit.
- 5 Carbon buildup or mechanical binding of the intake manifold flap linkage, causing the valve to draw excessive current.
- 6 Faulty engine control module (ECM) driver circuit, though this is less common.



How to diagnose and fix it

- 1 Perform a visual inspection of the changeover valve, its connector, and wiring for obvious damage, corrosion, or loose pins.
- 2 Check the fuse and relay related to the changeover valve circuit and replace if blown or faulty.
- 3 Use a scan tool to command the changeover valve on and off and listen for an audible click; no click suggests an electrical or mechanical fault.
- 4 Measure resistance across the valve solenoid terminals and compare to factory specifications; infinite resistance indicates an open winding.
- 5 Backprobe the valve connector and check for battery voltage on the power side and a ground pulse on the control side when commanded.
- 6 Inspect the intake manifold flap and linkage for carbon buildup or binding; clean or repair as needed.
- 7 If all electrical checks pass, substitute a known-good valve and clear the code to see if it returns; replace the valve if the fault persists.

Changeover valve faults often misdiagnosed

- A stuck-open changeover valve often causes no noticeable performance issue, so the code may be the only clue and should not be ignored.
- Carbon buildup on the intake flap can mimic an electrical failure by overloading the valve, leading to a false replacement of the valve itself.
- The changeover valve on many Volkswagen engines is vacuum-operated, so a leaking vacuum line can set P1511 even when the electrical circuit tests good.
- Corroded pins in the connector are a frequent cause, especially on older vehicles, and are often overlooked during diagnosis.
- The ECM may set P1511 intermittently if the valve coil is failing only when hot, so testing should include a wiggle test and heat soak if necessary.

Can I keep driving with P1511?

You can generally continue driving with P1511, but avoid aggressive acceleration and heavy loads until the fault is repaired, as the engine may not deliver full power and fuel economy could suffer. If the check engine light begins flashing or you notice severe performance loss, stop driving and seek professional diagnosis.

Tools that help

- OBD-II scan tool with bidirectional control capability
- Digital multimeter
- Test light
- Socket set and screwdrivers
- Vacuum pump (if vacuum-operated valve)



Reading P1511

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

Often seen with

P1515 Intake Manifold Changeover Valve Circuit Short To Ground · **P1513** Intake Manifold Changeover Valve 2 Circuit Short To B+ · **P1514** Intake Manifold Changeover Valve 2 Circuit Short To Ground · **P1512** Intake Manifold Changeover Valve Circuit Short To B+ · **P1510** Idle Air Control Circuit Short To B+ · **P1512** Boost Pressure High · **P1510** Boost Pressure Control Circuit · **P1510** PCM Backup Power Supply Circuit Fault · **P1515** Idle Air Control Solenoid Signal 3 Circuit High Input · **P1512** Idle Air Control Solenoid Signal 2 Circuit Low Input · **P1510** Idle Air Control Solenoid Signal 1 Circuit Low Input · **P1513** Idle Air Control Solenoid Signal 2 Circuit High Input · **P1514** Idle Air Control Solenoid Signal 3 Circuit Low Input · **P1514** High Load Neutral Drive Fault · **P1515** A/T To M/T Codification · **P1510** Idle Air Control Valve Closing Coil High Voltage · **P1513** Idle Air Control Valve Closing Coil Low Voltage · **P1514** High Load Neutral Drive Fault · **P1515** Control Module Throttle Actuator Position Performance · **P1510** Idle Signal Circuit Malfunction · **P1514** Throttle Body Performance · **P1513** Intake Manifold Runner Control Stuck Closed · **P1512** Intake Manifold Runner Control Stuck Closed · **P1514** Throttle Body Performance · **P1515** Control Module Throttle Actuator Position Performance · **P1510** Back UP Power Supply · **P1510** Idle Speed Control Valve Stuck · **P1513** DISA Control Circuit Signal High · **P1512** DISA Control Circuit Signal Low

See it working

Watch the animated explainer [Four-Stroke Engine Cutaway: Intake to Exhaust](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/volkswagen-p1511/>

