

GENERIC · POWERTRAIN

P0661

OBD-II TROUBLE CODE

P0661

Intake Manifold Tuning Valve Control Circuit Low (Bank 1)

P0661 indicates that the powertrain control module has detected an abnormally low voltage condition on the control circuit for the intake manifold tuning valve on bank 1. This valve adjusts intake runner length to optimize airflow at different engine speeds, and a low circuit reading means the computer cannot properly command the valve to change position.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Low	Intermediate	Computer and output circuits

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Slight hesitation or stumble during light acceleration at lower engine speeds
- Reduced engine power or sluggish throttle response in certain RPM ranges
- Rough idle quality or minor vibration felt through the steering wheel
- In rare cases, a faint rattling or buzzing noise from the intake manifold area

Common causes, most likely first

- 1 Damaged or disconnected electrical connector at the intake manifold tuning valve
- 2 Broken, chafed, or corroded wiring in the control circuit between the PCM and the valve
- 3 Failed intake manifold tuning valve solenoid or actuator
- 4 High resistance or open circuit inside the valve coil
- 5 Corroded or loose ground connection shared by the valve circuit
- 6 Faulty powertrain control module driver circuit, though this is uncommon



How to diagnose and fix it

- 1 Inspect the electrical connector at the intake manifold tuning valve for looseness, corrosion, or pushed-out pins
- 2 Check the wiring harness for chafing, breaks, or corrosion along the path from the valve to the PCM
- 3 Measure the resistance of the tuning valve solenoid with a multimeter and compare to the manufacturer's specification
- 4 Backprobe the control circuit at the valve connector to verify voltage and ground signals with the key on and engine running
- 5 Test the ground circuit for excessive resistance using a voltage drop test
- 6 If the circuit tests good, substitute a known-good valve or actuator to confirm the fault
- 7 Clear the code and perform a road test to verify the repair and ensure the code does not return

What the low circuit reading really means

- A low circuit code does not automatically condemn the valve itself; a poor ground or a short to ground in the wiring often causes the same reading.
- Some vehicles use the intake manifold tuning valve only during specific driving conditions, so the code may not set until the engine is under load at certain speeds.
- A stuck-open or stuck-closed tuning valve can cause driveability symptoms that mimic other faults, but P0661 specifically points to the electrical control circuit, not a mechanical failure.
- Technicians sometimes overlook a shared ground splice that serves multiple engine sensors, leading to unnecessary valve replacement.
- After repairing the circuit, the PCM may require a relearn or adaptive reset before the tuning valve operates correctly again.

Can I keep driving with P0661?

The vehicle is generally safe to drive with P0661 because the fault mainly affects intake tuning and does not cause a breakdown risk. Avoid heavy acceleration or towing until the repair is completed, as the engine may not deliver full performance.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Wire probe set
- Service information for circuit specifications
- Basic hand tools for connector and component access



Reading P0661

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 6** Computer and output circuits.
- 61** The exact fault within that area.

Often seen with

P0660 Intake Manifold Tuning Valve Control Circuit/Open (Bank 1) · **P0662** Intake Manifold Tuning Valve Control Circuit High (Bank 1) · **P2004** Intake Manifold Runner Control Stuck Open (Bank 1) · **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 [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/p0661/>

