

GENERIC · POWERTRAIN

P0660

OBD-II TROUBLE CODE

P0660

Intake Manifold Tuning Valve Control Circuit/Open (Bank 1)

P0660 indicates that the powertrain control module has detected an open circuit or excessive resistance in the control circuit for the intake manifold tuning valve on bank 1. The intake manifold tuning valve adjusts the effective intake runner length to optimize airflow at different engine speeds, and when its circuit is compromised the computer cannot command the valve to move. The code is set when the commanded state and the electrical feedback from the circuit do not match.

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
- A 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 surging when the engine is cold
- A faint rattle or clicking noise from the intake manifold area if the valve is stuck

Common causes, most likely first

- 1 Broken, chafed, or corroded wiring in the intake manifold tuning valve control circuit
- 2 Failed intake manifold tuning valve actuator solenoid or motor
- 3 Loose or corroded electrical connector at the tuning valve
- 4 Open winding or internal short in the tuning valve coil
- 5 Faulty powertrain control module driver circuit, though this is rare
- 6 Damage to the intake manifold tuning valve linkage or mechanism causing the actuator to bind



How to diagnose and fix it

- 1 Perform a visual inspection of the tuning valve connector and wiring for damage, corrosion, or looseness
- 2 Use a scan tool to command the tuning valve on and off while listening for actuator movement
- 3 Measure resistance across the tuning valve control circuit and compare to the manufacturer's specification
- 4 Check for battery voltage and ground at the tuning valve connector with the key on
- 5 Test the control circuit for continuity and shorts to ground or power using a digital multimeter
- 6 If the circuit tests good, remove the tuning valve and inspect the internal mechanism for binding or carbon buildup
- 7 Replace the intake manifold tuning valve if electrically faulty, then clear the code and verify the repair with a test drive

What the tuning valve code really means

- A P0660 is often stored intermittently due to a poor connection at the tuning valve, so cleaning and reseating the connector can resolve the issue without parts replacement.
The intake manifold tuning valve may be vacuum-operated on some engines, meaning a leaking vacuum hose or failed vacuum solenoid can trigger this code even when the electrical circuit is intact.
- Technicians sometimes replace the tuning valve only to find the real fault is a rubbed-through wire in the harness near the intake manifold, so always perform a wiggle test on the wiring.
- This code does not always indicate a failed valve; a stuck closed valve from carbon deposits can cause the actuator to draw excessive current and set the code.
On vehicles with multiple intake tuning valves, bank 1 refers to the valve on the bank containing cylinder one, so misidentifying the bank can lead to replacing the wrong component.

Can I keep driving with P0660?

The vehicle remains safe to drive with P0660 because the fault primarily affects intake tuning and does not cause an immediate safety risk. Avoid aggressive acceleration and towing until the repair is completed, as the engine may lack power in certain rpm ranges.

Tools that help

- OBD-II scan tool with bidirectional control capability
- Digital multimeter
- Wire probe set
- Socket and ratchet set
- Vacuum gauge if the valve is vacuum-operated



Reading P0660

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

Often seen with

P0661 Intake Manifold Tuning Valve Control Circuit Low (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/p0660/>

