

GENERIC · POWERTRAIN

P059C

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P059C

Active Grille Air Shutter A Position Sensor Circuit High

P059C indicates that the powertrain control module (PCM) has detected an abnormally high voltage on the position sensor circuit for the active grille air shutter 'A'. This sensor reports the physical position of the shutter, and a high voltage reading typically means the signal circuit is shorted to voltage, the sensor has failed, or the shutter is stuck and the sensor is reading out of range.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Vehicle speed, idle control and auxiliary inputs

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- The active grille shutter may remain fully open or fully closed regardless of engine temperature or speed.
- A slight decrease in fuel economy due to improper aerodynamic management.
- Possible overheating in hot weather if the shutter fails to open when required.
- On some vehicles, a message indicating that the grille shutter system is disabled or unavailable.
- Rarely, the engine may run slightly warmer than normal under heavy load.

Common causes, most likely first

- 1 A short to voltage on the position sensor signal circuit, often due to chafed or damaged wiring.
- 2 A failed active grille air shutter actuator assembly, including the integrated position sensor.
- 3 Corrosion or water intrusion in the shutter actuator connector, causing high resistance or intermittent shorts.
- 4 A stuck or binding shutter mechanism that forces the sensor to read beyond its normal range.
- 5 A faulty powertrain control module (PCM) or body control module (BCM) that is misinterpreting the sensor signal, though this is less common.
- 6 Aftermarket or improper electrical repairs that introduce a voltage source onto the signal circuit.



How to diagnose and fix it

- 1 Use a scan tool to retrieve all stored codes and freeze-frame data, then visually inspect the active grille shutter and its wiring for obvious damage or obstruction.
- 2 Disconnect the shutter actuator connector and inspect the terminals for corrosion, water intrusion, or loose pins; clean or repair as necessary.
- 3 With the connector disconnected and the key on, measure voltage on the signal circuit at the actuator harness; if voltage is present when it should not be, trace the circuit for a short to voltage.
- 4 Check the shutter mechanism for free movement by hand (with the actuator disconnected) to ensure it is not binding or jammed; repair or replace mechanical components as needed.
- 5 Perform a resistance test on the position sensor (if accessible) and compare to manufacturer specifications; replace the actuator assembly if the sensor is out of range.
- 6 If wiring and sensor test good, substitute a known-good actuator to see if the code clears; if it does, replace the original actuator.
- 7 Clear the codes and perform a relearn or calibration procedure for the active grille shutter as required by the vehicle manufacturer, then verify the repair with a test drive.

Before you replace the grille shutter actuator

- A high voltage code on a position sensor circuit is frequently caused by a short to voltage on the signal wire, not by a failed sensor; always check for voltage on the signal circuit with the sensor disconnected before condemning the actuator.
- The active grille shutter often shares power and ground with other sensors or actuators, so a fault in a shared circuit can set P059C along with codes for other components.
- Mechanical binding of the shutter flaps due to debris, ice, or impact damage can cause the sensor to read out of range and set this code, so always inspect the shutter for free movement.
- Some vehicles require a calibration or relearn procedure after any shutter service, and skipping it can cause the code to return even with good parts.
- P059C is sometimes stored intermittently due to water intrusion into the actuator connector after car washes or heavy rain, so check for signs of moisture and apply dielectric grease during reassembly.

Can I keep driving with P059C?

You can generally continue driving with P059C, but avoid heavy loads or sustained high-speed driving in hot weather because a stuck-closed shutter can reduce cooling airflow and may lead to overheating. Have the fault diagnosed soon to prevent potential engine damage and to restore fuel efficiency.



Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wire probe set or back-probe kit
- Service information for the specific vehicle (wiring diagrams and calibration procedures)
- Basic hand tools (socket set, screwdrivers, trim removal tools)

Reading P059C

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
5	Vehicle speed, idle control and auxiliary inputs.
9C	The exact fault within that area.

Often seen with

P059D Active Grille Air Shutter A Position Sensor Circuit Low · **P059E** Active Grille Air Shutter A Position Sensor Circuit Intermitt · **P059F** Active Grille Air Shutter A Performance/Stuck Off · **P05A0** Active Grille Air Shutter A Stuck On · **P05A1** Active Grille Air Shutter A Position Sensor Minimum/Maximum

See it working

Watch the animated explainer [How a Refrigerator Works: The Cooling Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p059c/>

