

GENERIC · POWERTRAIN

P059B

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P059B

Active Grille Air Shutter A Position Sensor Circuit Range/Performance

P059B means the engine computer has detected that the position sensor for active grille air shutter bank A is reporting a signal outside its expected range or behaving erratically. The active grille shutters are motorized louvers in the front grille that close at speed to improve aerodynamics and open for cooling, and the computer uses the position sensor to confirm the shutter is where it commands it to be.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

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 noticeable symptoms
- The active grille shutters may stay stuck open, reducing fuel economy at highway speeds
- The shutters may stay closed, causing higher engine coolant or transmission temperatures
- A message on the dash indicating a grille shutter fault or reduced engine power on some vehicles
- Visible misalignment or failure of the grille shutters to move when the engine is started or the vehicle reaches speed
- In rare cases, the engine may run hotter than normal if the shutters remain closed

Common causes, most likely first

- 1 Debris, snow, ice, or road splash physically blocking the shutter linkage or vanes
- 2 A faulty active grille shutter position sensor or its electrical connector
- 3 Damaged or corroded wiring between the sensor and the engine control module
- 4 A failed shutter actuator motor that prevents the vanes from moving to the commanded position
- 5 Mechanical binding or breakage in the shutter frame or linkage
- 6 A software calibration issue in the engine control module requiring a reflash
- 7 A problem with the shutter control module or its power and ground circuits



How to diagnose and fix it

- 1 Inspect the grille shutters for debris, ice, or physical damage and clear any obstruction
- 2 Check the shutter position sensor connector and wiring for corrosion, looseness, or damage
- 3 Use a scan tool to command the shutter open and closed while watching the position sensor data for erratic or missing readings
- 4 Test the position sensor signal circuit for a short to ground, short to voltage, or open circuit
- 5 Verify the shutter actuator motor operates smoothly through its full range and that the linkage is not binding
- 6 If the sensor or actuator is faulty, replace the affected component and clear the code
- 7 Check for and install any available engine control module software updates that address shutter operation

Grille shutter faults that fool technicians

- A low battery or voltage drop during cranking can set a false P059B because the shutter module may not complete its self-test, so always clear the code and verify it returns before replacing parts.
- The position sensor is often integrated into the shutter assembly, so a failed sensor may require replacing the entire active grille shutter unit rather than a separate sensor.
- On many vehicles, the active grille shutters perform a sweep test at every engine start; if the driver never notices the shutters moving, that is a clue the actuator or its power supply has failed.
- P059B can be set by a mechanical problem such as a bent shutter vane that prevents full travel, even when the sensor and wiring test perfectly.
- A code for the active grille shutter does not always mean the shutters are broken; a poor ground connection at the shutter module can cause the same range/performance fault.

Can I keep driving with P059B?

You can generally drive with P059B, but avoid sustained high-speed driving or heavy towing if the shutters are stuck closed, because that can cause overheating. If the engine temperature gauge climbs above normal, pull over and stop the engine.

Tools that help

- OBD-II scan tool with bidirectional control capability
- Digital multimeter
- Trim removal tools
- Flashlight and inspection mirror
- Service information for the specific vehicle



Reading P059B

- 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.
- 9B** The exact fault within that area.

Often seen with

P0480 Cooling Fan 1 Control Circuit Malfunction · **P059A** Active Grille Air Shutter A Position Sensor Circuit · **P059C** Active Grille Air Shutter A Position Sensor Circuit High · **P059D** Active Grille Air Shutter A Position Sensor Circuit Low · **P059E** Active Grille Air Shutter A Position Sensor Circuit Intermit

See it working

Watch the animated explainer [Master the Four-Stroke Engine Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p059b/>

