

GENERIC · POWERTRAIN

P2C74

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2C74

Active Grille Air Shutter C Control Circuit Range/Performance

P2C74 indicates that the powertrain control module has detected an out-of-range or performance fault in the control circuit for the active grille air shutter 'C' actuator, which is one of the motorized shutters that manage airflow through the front grille. The computer monitors the circuit's electrical behavior and expected shutter movement, and it sets this code when the feedback does not match the commanded position within the calibrated limits.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- The active grille shutters may remain stuck open or closed, affecting engine warm-up time and fuel efficiency.
- A slight decrease in fuel economy, especially during cold starts or highway driving.
- Possible overheating tendency in hot weather if the shutters fail to open when commanded.
- On some vehicles, a message in the driver information center about reduced engine power or service required.
- Audible clicking or buzzing from the front grille area when the ignition is turned on or off.

Common causes, most likely first

- 1 Binding or physical obstruction of the shutter linkage or vanes due to debris, ice, or collision damage.
- 2 Faulty shutter actuator motor or internal position sensor for shutter 'C'.
- 3 Damaged, corroded, or disconnected wiring or connector at the shutter actuator.
- 4 Open or shorted control circuit between the actuator and the powertrain control module.
- 5 Failed active grille shutter control module or software calibration issue.
- 6 Water intrusion into the actuator connector causing intermittent signals.



How to diagnose and fix it

- 1 Inspect the active grille shutter assembly for physical damage, debris, or ice that prevents free movement, and clean or repair as needed.
- 2 Check the actuator connector and wiring for corrosion, loose pins, or chafing, and repair any damaged sections.
- 3 Use a scan tool to command the shutter through its full range and observe the actual position feedback for smooth operation.
- 4 Measure resistance and voltage on the control circuit at the actuator and compare with manufacturer specifications to isolate an open or short.
- 5 If the circuit tests good, substitute a known-good actuator or perform a bidirectional test to confirm actuator failure.
- 6 Reprogram or replace the active grille shutter control module if the actuator and wiring are verified good but the fault persists.
- 7 Clear the code and perform a road test to verify the repair and ensure the monitor runs to completion.

What the grille shutter code hides

- A low battery or voltage drop during engine start can cause a false P2C74 because the actuator motor may not complete its self-test, so always check battery health first.
- The shutter 'C' circuit often shares a common ground with other shutters, so a bad ground can set this code even when the actuator itself is fine.
- After any repair, the shutter system usually requires a recalibration or learn procedure with a scan tool, otherwise the code may return immediately.
- Debris such as leaves or road salt can jam the shutter vanes without visible damage, so a thorough cleaning often resolves the fault without parts replacement.
- This code does not always mean the actuator is dead; a software calibration issue in the control module can mimic a circuit range fault and may be fixed by a reflash.

Can I keep driving with P2C74?

You can generally continue driving with this code, but avoid prolonged idling or heavy loads in hot weather because the shutters may not open to cool the engine. If the engine temperature gauge climbs above normal, pull over and shut off the engine to prevent overheating damage.

Tools that help

- OBD-II scan tool with bidirectional control and live data capability
- Digital multimeter
- Trim removal tools
- Service information for circuit diagrams and actuator specifications
- Flashlight and mirror for visual inspection



Reading P2C74

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- C** Hybrid propulsion.
- 74** The exact fault within that area.

Often seen with

P2C70 Drive Motor "A" Phase Z Current Low · **P2C71** Drive Motor "A" Phase Z Current High · **P2C72** Hybrid/EV Electronics Cooling System Performance · **P2C73** Active Grille Air Shutter C Stuck On · **P2C75** Active Grille Air Shutter Module C Over Temperature

See it working

Watch the animated explainer [Car Relay Test Bench: Test 4-Pin and 5-Pin Relays](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2c74/>

