

GENERIC · POWERTRAIN

**P2519**

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## P2519

### A/C Request 'A' Circuit

P2519 indicates that the powertrain control module (PCM) has detected an abnormal condition on the air conditioning (A/C) request 'A' circuit, which is the signal line the climate control head uses to ask the engine computer to engage the A/C compressor. The PCM monitors the expected voltage or state on this circuit and sets the code when the signal does not match what the module expects under the current conditions.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Vehicle speed, idle control and auxiliary inputs

### Symptoms you may notice

- The A/C compressor may not engage at all, leaving the cabin air warm.
- The A/C may work intermittently or only under certain conditions such as at idle or while driving.
- The check engine light (malfunction indicator lamp) is illuminated.
- The climate control panel may show normal settings but the system fails to cool.
- In some vehicles, the engine cooling fan may run continuously or not at all because the A/C request also influences fan operation.
- Often no symptoms besides the warning light, especially if the fault is intermittent or only affects a redundant signal path.

### Common causes, most likely first

- 1 A faulty A/C pressure switch or sensor that is part of the request circuit, sending an incorrect signal to the PCM.
- 2 Damaged, corroded, or disconnected wiring or connector pins in the A/C request circuit between the climate control head, pressure switch, and PCM.
- 3 A failed climate control head (HVAC control module) that is not sending the proper request signal.
- 4 An open or shorted A/C request circuit, including a blown fuse that powers the circuit.
- 5 A malfunctioning PCM that is unable to correctly interpret the A/C request signal, though this is less common.
- 6 Aftermarket accessories or improper previous repairs that tapped into the A/C request wiring and altered its voltage.
- 7 A binding or failed A/C compressor clutch that causes the PCM to see an implausible request signal due to feedback.



## How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related codes in the HVAC or body control modules that might indicate a different root cause.
- 2 Inspect the A/C request circuit wiring and connectors for damage, corrosion, or loose pins, especially at the pressure switch and PCM.
- 3 Check the A/C system refrigerant pressure with a manifold gauge set; low or high pressure can cause the pressure switch to send an abnormal request signal.
- 4 Test the A/C pressure switch or sensor according to the manufacturer's specifications and replace it if it does not switch or read correctly.
- 5 Use a scan tool to view live data for the A/C request status and compare it with the actual state of the climate control panel to isolate whether the signal is being sent.
- 6 If the signal is missing at the PCM but present at the control head, perform a continuity and voltage drop test on the request wire to locate an open or high resistance.
- 7 If all inputs and wiring test good, follow the manufacturer's diagnostic flow for the PCM, which may include reflashing or replacement only after confirming the PCM is at fault.

## What the A/C request circuit really does

- The A/C request circuit is not just a simple on/off switch; on many vehicles it is a multiplexed signal or a variable voltage that the PCM uses to anticipate load and adjust idle speed, so a partial failure can set P2519 without completely disabling the A/C.
- A common misdiagnosis is to replace the A/C compressor when the real problem is a faulty pressure switch or a chafed wire in the request circuit, because the compressor never receives the engage command.
- Some vehicles use the A/C request signal to control the engine cooling fan, so a failure in this circuit can cause overheating symptoms or a fan that runs constantly, leading technicians to chase cooling system faults instead of the A/C request.
- Intermittent P2519 codes are often caused by a failing climate control head that sends a sporadic signal, especially in vehicles with automatic climate control where the head unit communicates over a data bus.
- The code can be set by a completely unrelated aftermarket device, such as a remote starter or alarm system, that back-probes or taps into the A/C request wire and disturbs its voltage.

## Can I keep driving with P2519?

The vehicle remains safe to drive because the fault primarily affects A/C operation and does not compromise engine performance or safety systems. You can continue driving, but avoid using the A/C until the fault is repaired to prevent potential compressor damage or unexpected idle fluctuations.



## Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Manifold gauge set for A/C pressure testing
- Wiring diagram for the specific vehicle
- Basic hand tools for trim and connector access

## Reading P2519

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

## Often seen with

**P0532** A/C Refrigerant Pressure Sensor 'A' Circuit Low · **P0533** A/C Refrigerant Pressure Sensor 'A' Circuit High · **P0645** A/C Clutch Relay Control Circuit · **P2518** A/C Refrigerant Pressure Sensor 'B' Circuit High · **P2520** A/C Request 'A' Circuit Low

## See it working

Watch the animated explainer [How the EVAP System Works: Fuel Vapour and Leak Test](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2519/>

