

GENERIC · POWERTRAIN

P2522

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2522

A/C Request 'B' Circuit

P2522 indicates that the powertrain control module (PCM) has detected an implausible signal on the air conditioning (A/C) request 'B' circuit, which is a secondary input used to signal A/C compressor engagement. The PCM expects a specific voltage or state on this circuit when the A/C is requested, and the code sets when the signal does not match the commanded state or falls outside the expected range.

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

Symptoms you may notice

- The A/C may not blow cold air, or may only work intermittently.
- The A/C compressor clutch may fail to engage when requested.
- The blower motor may still function normally, but the air remains warm.
- A warning light (check engine or A/C system light) may be illuminated.
- Often no symptoms besides the warning light, with the A/C appearing to work normally.
- The A/C may default to a fixed mode or disable certain climate control functions.

Common causes, most likely first

- Faulty A/C request switch or climate control panel button.
- Damaged or corroded wiring in the A/C request 'B' circuit.
- Loose or corroded connector at the PCM or climate control module.
- Failed A/C pressure sensor or transducer sending an implausible signal.
- PCM software issue or internal fault in the A/C request input circuit.
- Aftermarket accessories or remote start systems improperly tied into the A/C request circuit.



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related codes in the climate control or body control modules.
- 2 Inspect the A/C request 'B' circuit wiring and connectors for damage, corrosion, or loose pins.
- 3 Test the A/C request switch or climate control panel for proper operation using a multimeter or scan tool data.
- 4 Check the A/C pressure sensor signal and compare it to actual system pressures if applicable.
- 5 Perform a voltage drop test on the A/C request circuit to identify excessive resistance.
- 6 If all external components test good, suspect the PCM and check for software updates or known issues.
- 7 Clear the code and verify the repair by operating the A/C system under various conditions.

When the A/C request circuit fools you

- A common misdiagnosis is replacing the A/C compressor when the actual fault is a simple wiring issue in the request circuit, so always check the signal at the PCM first.
- The A/C request 'B' circuit is often a redundant or secondary input, and some vehicles may not even use it, so the code can set without any drivability or cooling symptoms.
- Aftermarket remote start or alarm systems that tap into the A/C request wire are a frequent cause of intermittent P2522 codes that only appear under certain conditions.
- Corrosion inside a connector can create enough resistance to set the code without any visible damage, so a thorough pin drag and voltage drop test is essential.
- On some vehicles, a weak battery or charging system issue can cause the PCM to misread the A/C request signal, so always verify battery voltage and ground integrity.

Can I keep driving with P2522?

The vehicle is safe to drive with P2522 because the fault primarily affects A/C operation and does not compromise engine performance or safety. Avoid using the A/C system until the fault is repaired to prevent unnecessary compressor cycling, and address the issue promptly to avoid potential collateral damage to the compressor or clutch.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Test light or jumper wires
- Socket set and trim removal tools



Reading P2522

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 5** Vehicle speed, idle control and auxiliary inputs.
- 22** 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 · **P2521** A/C Request 'A' Circuit High · **P2523** A/C Request 'B' Circuit Low

See it working

Watch the animated explainer [How a MAP Sensor Works: Engine Vacuum and Load](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2522/>

