

GENERIC · POWERTRAIN

P00A5

OBD-II TROUBLE CODE

P00A5

Intake Air Temperature Sensor 2 Circuit Bank 2

P00A5 indicates that the powertrain control module has detected an out-of-range signal on the intake air temperature sensor 2 circuit for bank 2, which monitors the temperature of the air entering the second bank of cylinders. The computer compares the sensor voltage to expected values and flags the code when the signal falls outside the normal operating range for a calibrated period.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Low	Intermediate	Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or stumbling when the engine is cold
- Reduced fuel economy due to incorrect air density calculations
- Hesitation or lack of power during acceleration
- In rare cases, a no-start condition or stalling when the engine is cold
- Possible default to a fixed intake air temperature value, causing minor driveability changes

Common causes, most likely first

- 1 Faulty intake air temperature sensor 2 on bank 2
- 2 Damaged or corroded wiring or connector at the sensor
- 3 Open or short circuit in the sensor signal or ground circuit
- 4 Intake air leak between the sensor and the throttle body
- 5 Failed mass airflow sensor or other sensor sharing the same reference voltage
- 6 Powertrain control module software issue or internal fault



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to understand when the fault occurs
- 2 Visually inspect the intake air temperature sensor 2, its connector, and wiring for damage, corrosion, or loose pins
- 3 Measure the sensor resistance with a multimeter and compare to the manufacturer's temperature-resistance chart
- 4 Check the sensor reference voltage and ground circuit integrity with a multimeter or oscilloscope
- 5 Inspect the intake tract for leaks or blockages that could affect sensor readings
- 6 If the sensor and wiring test good, verify the powertrain control module is not misinterpreting the signal by checking for software updates or known issues
- 7 Replace the faulty sensor or repair the wiring as needed, then clear codes and verify the repair with a test drive

What the intake air temp code hides

- A P00A5 code often sets because of a poor connection at the sensor pigtail, not a failed sensor, so wiggle-testing the harness while watching live data can reveal the real culprit.
- On some vehicles, the intake air temperature sensor 2 is integrated into the mass airflow sensor or manifold absolute pressure sensor, so replacing the entire assembly may be necessary even if only the temperature element fails.
- The code can be triggered by a faulty thermostat or cooling system issue that causes intake air temperatures to stay abnormally low or high, misleading the diagnostic path.
- A dirty or contaminated sensor element from oiled air filters or crankcase ventilation issues can skew readings without completely failing, setting the code intermittently.
- Technicians sometimes overlook that bank 2 intake air temperature sensor 2 may share a ground with other sensors, so a bad ground can set multiple codes including this one.

Can I keep driving with P00A5?

The vehicle is generally safe to drive with this code because the engine management system substitutes a default temperature value, but you may notice slightly reduced performance or fuel economy. Avoid heavy towing or aggressive driving until the fault is repaired, and address the issue promptly to prevent secondary codes.



Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Oscilloscope (optional for signal analysis)
- Socket set and screwdrivers for sensor removal
- Manufacturer's service information for wiring diagrams and resistance charts

Reading P00A5

- P** Powertrain: engine, transmission and emissions.
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- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
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- 0** Fuel and air metering and auxiliary emission controls.
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- A5** The exact fault within that area.

Often seen with

P00A4 Charge Air Cooler Temperature Sensor Circuit Intermittent/Erratic · **P00A6** Intake Air Temperature Sensor 2 Circuit Range/Performance Bad · **P0102** Mass/Volume Air Flow Circuit Low Input · **P0112** Intake Air Temperature Circuit Low Input · **P0113** Intake Air Temperature Circuit High Input

See it working

Watch the animated explainer [Turbocharger Trainer: Boost, Wastegate and Intercooler](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p00a5/>

