

GENERIC · POWERTRAIN

P205C

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P205C

Reductant Tank Temperature Sensor A Circuit Low

P205C means the engine control module has detected a voltage signal from the reductant tank temperature sensor A circuit that is lower than the expected range for the current conditions. The sensor monitors the temperature of the diesel exhaust fluid tank, and a low signal typically indicates a short to ground, an open circuit, or a sensor that has failed and is reporting an unrealistically cold temperature.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	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
- A message on the dash indicating a reductant system fault or limited remaining vehicle starts
- Reduced engine power or torque as the ECM enters a protective strategy
- Inability to complete a regeneration cycle or a persistent derate condition
- Erratic or stuck temperature reading on a scan tool data stream
- In cold climates, an incorrect temperature reading may prevent the DEF heater from activating

Common causes, most likely first

- 1 A short to ground in the sensor signal wire or connector
- 2 An open circuit in the sensor signal or ground circuit, often due to a broken wire or corroded terminal
- 3 A failed reductant tank temperature sensor that reads lower than actual temperature
- 4 Water or contamination intrusion into the sensor connector or tank harness
- 5 A faulty engine control module, though this is rare and should be diagnosed last
- 6 A poor ground connection for the sensor circuit causing a voltage drop



How to diagnose and fix it

- 1 Connect a scan tool and read the reductant tank temperature sensor live data to confirm the low reading and check for related codes
- 2 Visually inspect the sensor, connector, and wiring for damage, corrosion, or loose pins, and repair as needed
- 3 Disconnect the sensor and measure resistance across its terminals, comparing to the manufacturer's temperature-resistance chart
- 4 Check the signal wire for a short to ground using a multimeter with the sensor disconnected and the key on
- 5 Check for an open circuit by measuring continuity from the sensor connector to the ECM connector
- 6 If the wiring and connector are good, replace the reductant tank temperature sensor and clear the code
- 7 After repair, verify the temperature reading is plausible and perform a test drive to confirm the code does not return

What a low reductant temperature signal really means

- A short to ground in the sensor circuit is far more common than a failed sensor, so always check the harness before condemning the part.
- The ECM may substitute a default temperature value when the signal is low, which can mask the fault until the vehicle enters a derate strategy.
- On many vehicles, the reductant tank temperature sensor is part of a combined tank module, and a low signal can be caused by a failed heater element sharing the same circuit.
- A low signal does not always mean the tank is actually cold; a biased sensor can report a low temperature even in warm conditions, leading to incorrect DEF dosing.
- Corrosion at the sensor connector from DEF residue is a frequent cause that is easily overlooked during a quick visual inspection.

Can I keep driving with P205C?

You can usually drive the vehicle short distances to a repair shop, but avoid long trips or heavy loads because the ECM may soon limit speed or power to protect the emissions system. If the dashboard displays a countdown to a no-start condition, have the fault repaired before the countdown expires.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the reductant tank temperature sensor circuit
- Terminal removal tools and electrical contact cleaner
- Jack and safety stands for accessing the sensor underneath the vehicle



Reading P205C

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 0** Fuel and air metering and auxiliary emission controls.
- 5C** The exact fault within that area.

Often seen with

P205B Reductant Tank Temperature Sensor A Circuit Range/Performance · **P205D** Reductant Tank Temperature Sensor A Circuit High · **P205E** Reductant Tank Temperature Sensor A Circuit Intermittent/Err · **P20B9** Reductant Heater A Control Circuit/Open · **P20BA** Reductant Heater A Control Performance

See it working

Watch the animated explainer [How a Padlock Works: Pin Tumbler Lock in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p205c/>

