

GENERIC · POWERTRAIN

P200E

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P200E

Catalyst System Over Temperature (Bank 1)

P200E means the powertrain control module (PCM) has calculated that the catalytic converter on bank 1 has exceeded its safe operating temperature, based on exhaust temperature sensor readings and operating conditions. The PCM sets this code when the converter's internal temperature rises high enough to risk damaging the catalyst substrate, often during sustained high-load driving or when unburned fuel reaches the converter.

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

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Reduced engine power or limp mode if the PCM enters protection strategy
- A hot, acrid or sulfur-like smell from the exhaust after driving
- Rattling or buzzing noise from under the vehicle if the catalyst substrate has begun to break down
- Poor fuel economy or rough running if the over-temperature is caused by misfire or rich operation
- In severe cases, glowing red converter housing visible underneath the vehicle after dark

Common causes, most likely first

- 1 Engine misfire sending unburned fuel into the exhaust, where it burns in the converter
- 2 Rich fuel mixture from leaking or stuck-open fuel injectors, high fuel pressure, or faulty sensors
- 3 Exhaust leaks upstream of the converter allowing extra oxygen into the exhaust stream
- 4 Faulty exhaust gas temperature sensor or its wiring giving false high readings
- 5 Retarded ignition timing or incorrect camshaft timing causing late, hot combustion
- 6 Aging or partially clogged catalytic converter that cannot dissipate heat properly
- 7 Prolonged heavy-load driving, such as towing uphill, in high ambient temperatures



How to diagnose and fix it

- 1 Scan all stored and pending codes in all modules, because P200E is often accompanied by misfire or fuel trim codes that point to the root cause
- 2 Check live data for exhaust gas temperature sensor readings and compare bank 1 to bank 2 where both exist, looking for an implausible or stuck-high signal
- 3 Inspect the exhaust system for leaks, loose connections, and damaged wiring to the temperature sensor before condemning the converter
- 4 Perform a misfire and fuel trim analysis using scan tool data, and repair any ignition, injection, or intake leak faults found
- 5 Verify fuel pressure and injector operation, including a leak-down test, to rule out rich running that overheats the catalyst
- 6 Check ignition timing and camshaft timing against specifications if no other cause is found
- 7 Replace the catalytic converter only after all upstream causes are corrected, and confirm the new converter's temperature sensor circuit is functioning

Why the converter overheats without a misfire code

- A converter can overheat from a slightly rich mixture or a small exhaust leak that never sets a misfire code, so the absence of P0300-series codes does not rule out unburned fuel as the cause.
- The exhaust gas temperature sensor used for this monitor is often the same sensor that feeds the converter efficiency logic, so a biased sensor can trigger P200E while the converter itself is healthy.
- Replacing the catalytic converter without fixing the underlying rich or misfire condition will destroy the new unit in a short time, which is the most common and expensive misdiagnosis for this code.
- Long uphill pulls with a loaded vehicle in hot weather can push converter temperature into the warning range on an otherwise healthy system, so check freeze-frame data for the conditions when the code set.
- A restricted exhaust or a collapsed substrate can raise backpressure and temperature, so a backpressure test is worthwhile before assuming the converter is the failed part.

Can I keep driving with P200E?

Stop driving as soon as it is safe if the check engine light is flashing or you notice a hot smell, because an overheated converter can melt its substrate and create a fire risk. If the light is steady and the vehicle runs normally, drive gently to a repair shop without heavy loads or sustained high speeds.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Infrared thermometer
- Exhaust backpressure gauge
- Fuel pressure gauge
- Digital multimeter
- Vacuum gauge

Reading P200E

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.
0E	The exact fault within that area.

Often seen with

P0133 O2 Sensor Circuit Slow Response (Bank 1 Sensor 1) · **P0172** System Too Rich (Bank 1) · **P0300** Random/Multiple Cylinder Misfire Detected · **P0420** Catalyst System Efficiency Below Threshold (Bank 1) · **P200F** Catalyst System Over Temperature (Bank 2)

See it working

Watch the animated explainer **V6 Engine Explained: 60° Bank and Firing Order** on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p200e/>

