

GENERIC · POWERTRAIN

P008E

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P008E

Fuel Cooler Pump Control Circuit High

P008E indicates that the powertrain control module has detected an abnormally high voltage on the control circuit for the fuel cooler pump, which is used to circulate coolant through the fuel cooler on certain diesel and direct-injection engines. The computer expects the circuit to pull a specific current and see a predictable voltage; a high-voltage reading means the circuit is open, shorted to power, or the pump is not drawing current as designed.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Reduced engine performance or power derate if the fuel temperature rises excessively
- Fuel temperature warning message on the dashboard in some vehicles
- Possible fuel smell or increased fuel vapor smell in the engine bay if the cooler is not working
- In rare cases, rough running or stalling after prolonged driving under heavy load

Common causes, most likely first

- 1 Open circuit in the fuel cooler pump control wire, such as a broken wire or disconnected connector
- 2 Failed fuel cooler pump motor with an open internal winding
- 3 Corroded or damaged electrical connector at the pump or control module
- 4 Short to battery voltage on the control circuit, often from chafed wiring
- 5 Faulty fuel cooler pump relay or control module driver circuit
- 6 Blown fuse or poor ground connection for the pump circuit
- 7 Aftermarket accessories or wiring repairs that disturbed the circuit



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related codes in other modules
- 2 Inspect the fuel cooler pump fuse and relay, replacing any blown fuse or faulty relay
- 3 Visually inspect the pump connector and wiring for corrosion, damage, or loose pins
- 4 Disconnect the pump and measure resistance across its terminals to check for an open winding
- 5 With the pump disconnected, check for battery voltage on the control wire with the key on to detect a short to power
- 6 Perform a voltage drop test on the ground circuit and repair any excessive resistance
- 7 If the circuit and pump test good, suspect the control module and perform pinpoint tests before replacement

What a high-voltage pump code really means

- A high-voltage code on a pump control circuit almost always indicates an open circuit or a pump that has stopped drawing current, not a pump that is running too fast.
- Many technicians replace the fuel cooler pump only to find the real fault is a chafed wire in the harness near the engine mount or a corroded connector pin.
- The fuel cooler pump often runs only under specific conditions such as high fuel temperature or heavy load, so a failed pump may not set a code during a short test drive.
- On some vehicles, the fuel cooler pump shares a power feed with other components, so a blown fuse may cause multiple codes and a no-start condition.
- A short to voltage on the control wire can be intermittent and may only appear when the wiring harness is moved, so wiggle tests are essential during diagnosis.

Can I keep driving with P008E?

You can usually drive the vehicle short distances at moderate load, but avoid heavy towing or sustained high-speed driving because a failed fuel cooler pump can cause fuel overheating and possible engine derate. If the engine enters limp mode or you smell raw fuel, stop driving and have the vehicle inspected.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Test light
- Wire repair kit with crimpers and heat shrink
- Electrical contact cleaner
- Factory service information or wiring diagrams



Reading P008E

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 0** Fuel and air metering and auxiliary emission controls.
- 8E** The exact fault within that area.

Often seen with

P008A Low Pressure Fuel System Pressure - Too Low · **P008B** Low Pressure Fuel System Pressure - Too High
 · **P008C** Fuel Cooler Pump Control Circuit/Open · **P008D** Fuel Cooler Pump Control Circuit Low · **P0090** Fuel Pressure Regulator 1 Control Circuit

See it working

Watch the animated explainer [Four-Stroke Engine Cutaway: Intake to Exhaust](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p008e/>

