

MAZDA · POWERTRAIN

P1182

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1182 · Mazda

Fuel Shut Off Solenoid Circuit

P1182 on Mazda vehicles indicates that the powertrain control module (PCM) has detected an electrical fault in the fuel shut-off solenoid circuit, which is used to cut fuel delivery under certain conditions such as deceleration or over-revving. The PCM monitors the circuit for expected voltage or current and sets the code when the signal is out of range, often due to an open, short, or high resistance in the wiring or solenoid itself.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Mazda specific	Medium	Intermediate	Fuel and air metering

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Engine may stall or stumble when decelerating or lifting off the throttle
- Rough idle or hesitation during normal driving if the solenoid fails to open
- Difficulty restarting immediately after the engine is shut off
- Poor fuel economy or rich running condition if the solenoid sticks closed
- In rare cases, the engine may not start at all if the solenoid remains closed

Common causes, most likely first

- 1 Faulty fuel shut-off solenoid (open or shorted coil)
- 2 Damaged or corroded wiring harness to the solenoid
- 3 Loose or dirty electrical connector at the solenoid
- 4 Blown fuse or faulty relay supplying power to the solenoid circuit
- 5 PCM internal driver failure (less common)
- 6 Aftermarket alarm or remote start system improperly spliced into the circuit

How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related pending or history codes
- 2 Inspect the fuel shut-off solenoid connector and wiring for corrosion, chafing, or loose pins
- 3 Test the solenoid resistance with a multimeter and compare to the manufacturer's specification
- 4 Check for battery voltage at the solenoid connector with the key on, engine off
- 5 Test the control circuit from the PCM to the solenoid for continuity and short to ground
- 6 If the solenoid fails electrical tests, replace it and clear the code
- 7 If the circuit tests good but the code persists, diagnose the PCM driver or seek dealer-level reprogramming



What Mazda techs check before replacing the solenoid

- A common oversight is a poor ground connection at the solenoid mounting bolt, which can mimic a failed solenoid and set P1182 without any faulty component.
- Aftermarket remote start or alarm systems often tap into the fuel shut-off circuit, introducing resistance or intermittent opens that trigger this code.
- The fuel shut-off solenoid is sometimes confused with the fuel pressure regulator or inertia switch, so verify the exact component location in the Mazda service manual before testing.
- On some Mazda models, the solenoid is powered through a dedicated fuse in the engine bay fuse box that can develop hairline cracks not visible to the eye.
- A scan tool with bidirectional controls can command the solenoid on and off to confirm whether the PCM driver or the mechanical solenoid is at fault.

Can I keep driving with P1182?

You can generally drive the vehicle with P1182 set, but avoid aggressive deceleration or high-rpm engine braking until the fault is repaired, as the fuel shut-off function may not work correctly. If the engine stalls frequently or is difficult to restart, have the vehicle inspected promptly to prevent a no-start situation.

Tools that help

- OBD-II scan tool with bidirectional control capability
- Digital multimeter
- Test light
- Wire probe set
- Mazda service manual or wiring diagram

Reading P1182

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Mazda): its meaning depends on the make.
- 1** Fuel and air metering.
- 82** The exact fault within that area.

Often seen with

P1181 Linear Oxygen Sensor Reference Voltage Open · **P1183** Linear Oxygen Sensor Reference Voltage Short To B+ · **P1181** Fuel Delivery System Malfunction High · **P1183** Engine Oil Temperature Circuit Malfunction · **P1181** O2 Sensor Signal Circuit Slow Switching From Rich to Lean Ba · **P1183** O2 Sensor Bank 2 Sensor 2 Open Circuit During Coast Down Fue · **P0087** Fuel Rail/System Pressure - Too Low · **P0090** Fuel Pressure Regulator 1 Control Circuit · **P0627** Fuel Pump 'A' Control Circuit /Open



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/mazda-p1182/>

