

MAZDA · POWERTRAIN

P1298

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1298 · Mazda

Injector Driver Module Failure

P1298 on Mazda vehicles indicates that the powertrain control module has detected a failure within the injector driver module circuit, which is responsible for supplying the correct current to the fuel injectors. The computer monitors the driver module's feedback and flags this code when the expected electrical response is missing or out of range, often resulting in one or more injectors not firing.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Mazda specific	High	Professional	Fuel and air metering (injector circuits)

Symptoms you may notice

- Engine misfire or rough running, especially under load or acceleration
- Illuminated check engine light, often with no other noticeable symptoms at first
- Reduced engine power or limp mode activation
- Poor fuel economy and increased emissions
- Hard starting or stalling, particularly when the engine is cold
- A distinct lack of power from one or more cylinders

Common causes, most likely first

- 1 Faulty injector driver module internal to the powertrain control module (PCM)
- 2 Open or shorted wiring between the PCM and the injector driver module
- 3 Corroded or loose electrical connectors at the PCM or injector harness
- 4 Failed fuel injector with excessive resistance or short circuit
- 5 Damaged ground connection for the injector driver circuit
- 6 Water intrusion or heat damage affecting the PCM connector pins



How to diagnose and fix it

- 1 Perform a visual inspection of the injector harness and PCM connectors for corrosion, chafing, or loose pins
- 2 Use a scan tool to check for related misfire codes and freeze-frame data to identify which injector circuit is affected
- 3 Measure resistance of each fuel injector with a multimeter and compare to factory specifications
- 4 Back-probe the injector driver module signal wire at the PCM and check for a consistent pulse with an oscilloscope or noid light
- 5 Check continuity and voltage drop on the ground circuit for the injector driver module
- 6 If wiring and injectors test good, substitute a known-good PCM and retest the circuit
- 7 Replace the faulty injector driver module or PCM as required, then clear codes and verify repair with a road test

What Mazda techs check before PCM replacement

- A failed injector driver module is often misdiagnosed as a bad PCM, but the module is sometimes a separate serviceable unit mounted near the injectors on certain Mazda models.
- Corroded pins at the PCM connector are a common hidden cause, especially on vehicles with a history of water leaks or engine bay washing.
- A single shorted fuel injector can damage the driver module, so always test injector resistance before installing a replacement PCM to avoid repeat failure.
- This code can set intermittently due to heat-related expansion of a marginal solder joint inside the driver module, so a cold-engine test may not reveal the fault.
- Some Mazda models require a relearn procedure after PCM replacement, and skipping it can cause a new P1298 or driveability complaints.

Can I keep driving with P1298?

Driving with P1298 is not recommended because the engine may misfire severely, overheat the catalytic converter, or enter limp mode without warning. Limit driving to a short distance to a repair shop and avoid heavy acceleration or highway speeds.

Tools that help

- OBD-II scan tool with live data and misfire monitoring
- Digital multimeter
- Oscilloscope or noid light set
- Factory service information for wiring diagrams and pinouts
- Basic hand tools for connector and component access



Reading P1298

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

Often seen with

P0201 Injector Circuit Malfunction - Cylinder 1 · **P0202** Injector Circuit Malfunction - Cylinder 2 · **P0203** Injector Circuit Malfunction - Cylinder 3 · **P0300** Random/Multiple Cylinder Misfire Detected · **P0301** Cylinder 1 Misfire Detected

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/mazda-p1298/>

