

GENERIC · POWERTRAIN

P0892

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0892

TCM Power Relay Sense Circuit Intermittent

P0892 indicates that the transmission control module (TCM) has detected an intermittent fault in the power relay sense circuit, which is the feedback line that confirms the transmission power relay is supplying voltage to the TCM and its associated components. The TCM monitors this circuit and sets the code when the sensed voltage is inconsistent with the commanded relay state, often due to a loose connection, damaged wiring, or a failing relay.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Transmission

Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) on the dashboard.
- Often no symptoms besides the warning light, especially if the fault is truly intermittent.
- Intermittent harsh or delayed transmission shifts.
- Transmission may enter limp mode (fail-safe mode) with reduced performance.
- Inconsistent or erratic operation of the transmission, such as slipping or flaring.
- Possible no-start condition if the relay also supplies power to other critical circuits.

Common causes, most likely first

- Faulty transmission power relay (relay coil or contacts worn).
- Loose or corroded electrical connections at the relay, TCM, or ground points.
- Damaged or chafed wiring in the power relay sense circuit (open or short to ground/power).
- Poor terminal tension at the TCM connector or relay socket.
- Internal fault in the TCM (less common).
- Water intrusion or corrosion in the relay box or TCM connector.
- Aftermarket accessories improperly tapped into the circuit causing voltage fluctuations.



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related codes in the TCM and other modules.
- 2 Inspect the transmission power relay and its socket for corrosion, loose terminals, or signs of overheating; swap with a known-good relay of the same part number if available.
- 3 Check the relay control circuit from the TCM to the relay, looking for open circuits, shorts, or high resistance; use a wiring diagram and multimeter.
- 4 Test the sense circuit voltage at the TCM connector with the relay commanded on and off; compare to manufacturer specifications.
- 5 Perform a voltage drop test on the power and ground circuits to the TCM and relay to identify excessive resistance.
- 6 Inspect the TCM connector for corrosion, water intrusion, or bent pins; clean and apply dielectric grease if necessary.
- 7 If all external circuits and components test good, follow the manufacturer's diagnostic flow for internal TCM fault confirmation before replacement.

Intermittent Relay Sense Faults Often Misdiagnosed

- A intermittent power relay sense fault can be caused by a relay that tests fine when cold but fails when hot; always test the relay under load or swap with a known-good unit.
- The sense circuit is a low-current feedback line, so a high-resistance connection at the TCM connector can set this code without any visible damage.
- This code does not always mean the relay itself is bad; the TCM may be misinterpreting a normal voltage drop due to a weak battery or charging system issue.
- Aftermarket remote starters or alarm systems tapped into the ignition or relay circuits are a common hidden cause of intermittent voltage irregularities.
- On some vehicles, the transmission power relay also supplies power to other modules, so a fault here can cause unrelated symptoms that lead technicians astray.

Can I keep driving with P0892?

If the vehicle drives normally with only the warning light on, you can drive short distances to a repair shop, but avoid heavy loads or aggressive driving. If the transmission is shifting harshly or has entered limp mode, stop driving and seek professional diagnosis to prevent further damage.



Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Test light
- Wiring diagram for the specific vehicle
- Relay puller or small pick
- Dielectric grease and electrical contact cleaner

Reading P0892

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
8	Transmission.
92	The exact fault within that area.

Often seen with

P0700 Transmission Control System Malfunction · **P0890** TCM Power Relay Sense Circuit Low · **P0891** TCM Power Relay Sense Circuit High · **P0893** Multiple Gears Engaged · **P0894** Transmission Component Slipping

See it working

Watch the animated explainer [Car Relay Test Bench: Test 4-Pin and 5-Pin Relays](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0892/>

