

GENERIC · POWERTRAIN

P0882

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0882

TCM Power Input Signal Low

P0882 means the transmission control module (TCM) has detected that its main power input voltage is lower than the expected threshold while the ignition is on. The TCM monitors its own supply circuit and sets this code when the voltage on the power feed drops below a calibrated value, which can disrupt shift scheduling and solenoid control.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Transmission

Symptoms you may notice

- Illumination of the check engine light or transmission warning light, often with no other noticeable symptoms
- Harsh or delayed shifting as the TCM defaults to a limp-home strategy
- Transmission stuck in a single gear or refusing to downshift during acceleration
- Intermittent loss of power to the transmission controls, causing momentary hesitation or flare
- Battery drain or a no-crank condition if the low voltage source also affects other modules
- Erratic operation of other electronic features that share the same power feed

Common causes, most likely first

- 1 Corroded, loose, or damaged battery terminals and cables that create resistance in the TCM power feed
- 2 A failing or undercharged battery that cannot maintain stable voltage under load
- 3 Blown fuse or faulty relay in the TCM power supply circuit
- 4 Chafed, pinched, or broken wiring between the battery, fuse box, and TCM connector
- 5 High resistance inside the TCM connector pins or a poor ground connection for the TCM
- 6 A failing alternator that allows system voltage to sag during operation
- 7 Internal fault in the TCM causing it to misread its own supply voltage



How to diagnose and fix it

- 1 Perform a battery and charging system test to confirm the battery holds a stable charge and the alternator maintains proper voltage
- 2 Inspect and clean battery terminals, ground straps, and the TCM ground point for corrosion or looseness
- 3 Check the fuse and relay that feed the TCM power input circuit, replacing any that are blown or suspect
- 4 Back-probe the TCM power input wire at the connector with the key on and compare the reading to battery voltage to identify voltage drop
- 5 Visually inspect the wiring harness from the fuse box to the TCM for chafing, pinches, or heat damage and repair as needed
- 6 Perform a voltage drop test on both the power and ground sides of the TCM circuit under load to pinpoint high-resistance connections
- 7 If all external circuits test good, substitute a known-good TCM or perform a module reflash only after confirming the internal fault

Why a healthy battery can still set P0882

- A battery that passes a basic load test can still cause P0882 if the voltage drops momentarily during cranking or under heavy electrical load, so a voltage drop test on the TCM feed is more revealing than a simple battery check.
- Corrosion inside the TCM connector pins is a frequent culprit that visual inspection of the battery cables will miss, and it often creates an intermittent low-voltage signal that only appears when the harness is flexed.
- This code does not always mean the TCM is failing; many vehicles set P0882 because a shared power feed also supplies other modules, and a fault in that shared circuit drags down the TCM supply.
- A loose or oxidized ground connection for the TCM can mimic a low power input signal because the module measures voltage relative to its ground reference, so both sides of the circuit must be tested.
- Technicians who replace the TCM without first performing a loaded voltage drop test on the power and ground circuits frequently find the code returns because the original wiring fault was never corrected.

Can I keep driving with P0882?

You can usually drive the vehicle to a repair shop, but avoid heavy acceleration, towing, or long trips because the transmission may enter limp mode without warning. If the transmission is stuck in gear or shifting harshly, limit driving to a short distance at low speed.

Tools that help

- Digital multimeter with voltage drop capability
- Battery load tester
- Fuse puller and test light
- Wire terminal pick and electrical contact cleaner
- Scan tool capable of reading TCM codes and live data



Reading P0882

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

Often seen with

P0562 System Voltage Low · **P0563** System Voltage High · **P0700** Transmission Control System Malfunction · **P0883** TCM Power Input Signal High · **U0100** Lost Communication With ECM/PCM A

See it working

Watch the animated explainer [How a Gyroscope Works: Gimbals and Precession](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0882/>

