

VOLKSWAGEN · POWERTRAIN

P1830

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1830 · Volkswagen

Pressure Control Solenoid 4 Short To B+

P1830 on Volkswagen vehicles indicates that the transmission control module (TCM) has detected a short to battery positive voltage (B+) on the electrical circuit for pressure control solenoid 4, which is part of the valve body inside the automatic transmission. The TCM monitors the solenoid command wire and expects a certain voltage range; when it sees voltage that is too high, it sets this code and typically puts the transmission into a fail-safe mode.

SYSTEM

Powertrain

CODE TYPE

**Volkswagen
specific**

SEVERITY

High

FIX DIFFICULTY

Professional

AREA

Transmission

Symptoms you may notice

- The transmission may enter limp mode, staying in a single gear or refusing to shift.
- Harsh or delayed gear engagements, especially when selecting Drive or Reverse.
- The gear indicator on the instrument cluster may flash or show an error.
- The check engine light and possibly the transmission warning light illuminate.
- In some cases, the driver may notice no symptoms besides the warning light, especially if the fault is intermittent.

Common causes, most likely first

- 1 Damaged or chafed wiring in the solenoid 4 circuit shorting to a power wire or the battery positive cable.
- 2 Internal short to B+ inside pressure control solenoid 4 itself, often due to heat and fluid contamination.
- 3 Corroded, bent, or pushed-back pins at the transmission control module (TCM) or solenoid connector.
- 4 Transmission fluid leaking into the connector or harness, causing a conductive path to voltage.
- 5 A faulty TCM driver circuit that incorrectly reports a short, though this is less common.
- 6 Aftermarket accessories or poor previous repairs that routed wiring incorrectly near the transmission harness.



How to diagnose and fix it

- 1 Scan all modules for fault codes and record freeze-frame data to confirm P1830 is current and not history.
- 2 Visually inspect the transmission harness and solenoid connector for chafing, corrosion, or fluid intrusion, repairing as needed.
- 3 Disconnect the TCM and solenoid connector, then measure resistance and check for continuity to B+ on the solenoid 4 command wire to isolate the short.
- 4 If the harness checks good, remove the valve body and test solenoid 4 directly for internal short to its power feed.
- 5 Replace the faulty solenoid or valve body assembly if the solenoid is not serviceable separately, using proper fluid and gaskets.
- 6 Clear codes and perform a transmission adaptation reset or relearn procedure with a capable scan tool.
- 7 Road test under varied conditions to verify the code does not return and shift quality is restored.

What the short to B+ really means

- A short to B+ is not the same as an open circuit; the solenoid may still click when commanded, so a simple listen test can be misleading.
- Fluid wicking through the solenoid connector pins is a frequent hidden cause on higher-mileage Volkswagen automatics and can mimic a failed solenoid.
- The TCM often sets P1830 along with other solenoid codes when the shared power or ground circuit is compromised, so always check the common feed first.
- Replacing the solenoid without addressing a chafed harness section near the transmission mount will usually result in the code returning within a few hundred miles.
- Some aftermarket scan tools misreport this code as a generic pressure control fault; verify with Volkswagen-specific software before ordering parts.

Can I keep driving with P1830?

If the transmission is in limp mode or shifting harshly, avoid driving except to a nearby repair shop, as continued operation can damage clutch packs. If the only symptom is the warning light and the car drives normally, you may drive cautiously to a workshop, but avoid heavy acceleration or towing.

Tools that help

- Volkswagen-specific scan tool (VCDS, ODIS, or equivalent) with transmission diagnostics
- Digital multimeter with back-probe capabilities
- Wiring diagram for the specific Volkswagen model and transmission
- Transmission fluid catch pan and fluid level tool
- Torque wrench and basic hand tools for valve body access



Reading P1830

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Volkswagen): its meaning depends on the make.
- 8** Transmission.
- 30** The exact fault within that area.

Often seen with

P1831 PC Solenoid Power Circuit Low Voltage · **P1832** Transmission Transfer Case Differential Lock-Up Solenoid Cir · **P0747** Pressure Control Solenoid 'A' Stuck On · **P0748** Pressure Control Solenoid 'A' Electrical

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/volkswagen-p1830/>

