

VOLKSWAGEN · POWERTRAIN

P1782

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1782 · Volkswagen

Engine Torque Reduction Short To B+

P1782 on Volkswagen vehicles indicates that the engine control module (ECM) has detected a short to battery voltage on the circuit responsible for engine torque reduction requests, which are typically sent to the transmission control module (TCM) during gear shifts. The ECM monitors this signal line and sets the code when the voltage on the circuit is abnormally high, suggesting a wiring fault or component failure that prevents proper torque management communication.

SYSTEM

Powertrain

CODE TYPE

**Volkswagen
specific**

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Transmission

Symptoms you may notice

- Illumination of the check engine light (CEL) on the dashboard.
- Harsh or delayed gear shifts as the transmission may not receive torque reduction requests.
- Reduced engine performance or limp mode in some cases.
- Transmission may enter fail-safe mode, limiting gear selection.
- Often no symptoms besides the warning light, especially if the fault is intermittent.

Common causes, most likely first

- 1 Damaged or chafed wiring harness between the ECM and TCM, causing a short to battery positive.
- 2 Corroded or loose electrical connectors at the ECM or TCM.
- 3 Faulty transmission control module (TCM) internally shorted.
- 4 Defective engine control module (ECM) output driver for the torque reduction circuit.
- 5 Aftermarket accessories or improper wiring repairs tapping into the circuit.
- 6 Water intrusion or contamination in the wiring harness or connectors.



How to diagnose and fix it

- 1 Perform a visual inspection of the wiring harness and connectors between the ECM and TCM for damage, corrosion, or loose pins.
- 2 Use a digital multimeter to check for battery voltage on the torque reduction signal wire with the key on and engine off; compare to factory specifications.
- 3 Disconnect the TCM and ECM connectors and inspect for bent or recessed pins, then clean with electrical contact cleaner.
- 4 Check for continuity and resistance on the signal wire to identify opens or shorts; wiggle-test the harness while monitoring the meter.
- 5 If wiring is intact, substitute a known-good TCM or ECM to isolate the fault, following proper programming procedures.
- 6 Repair or replace any damaged wiring sections, using solder and heat shrink for lasting repairs.
- 7 Clear the fault codes and perform a road test to verify the repair and ensure the code does not return.

Common Misdiagnosis Traps for P1782

- A short to battery voltage can be intermittent, often caused by harness chafing near sharp edges or heat sources, so a wiggle test while monitoring live data is crucial.
- The code may be set by a faulty TCM even when the wiring tests good, as internal shorts in the TCM can mimic a wiring fault.
- Aftermarket electrical accessories improperly tapped into the CAN bus or signal wires are a frequent culprit that many technicians overlook.
- P1782 does not always mean the ECM is faulty; the ECM is robust and should only be replaced after all other possibilities are ruled out.
- Related codes such as P0700 or P1783 may accompany this code, indicating broader transmission control issues that need addressing.

Can I keep driving with P1782?

The vehicle can be driven cautiously if the only symptom is the warning light, but avoid aggressive acceleration or heavy towing until the fault is repaired. If the transmission exhibits harsh shifting or enters limp mode, seek professional diagnosis promptly to prevent further damage.

Tools that help

- Digital multimeter (DMM)
- OBD-II scan tool with live data capability
- Wiring diagram for the specific Volkswagen model
- Electrical contact cleaner
- Heat shrink tubing and soldering iron for repairs
- Trim removal tools for accessing harnesses



Reading P1782

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

Often seen with

P1781 Engine Torque Reduction Open Short To Ground · **P1781** Transmission 4x4 Low Switch Out Of Range Fault · **P1783** Transmission Fluid Temperature High Input · **P1781** Upshift Delay Switchover Valve ATCC Y35 · **P1781** Transmission 4x4 Low Switch Out Of Range Fault · **P1783** Transmission Fluid Temperature High Input · **P1781** 4x4 Low Switch is Out of Self-Test Range · **P1783** Transmission Over-Temperature Condition · **P0700** Transmission Control System Malfunction · **P0721** Output Speed Sensor Range/Performance · **U0101** Lost Communication with TCM

See it working

Watch the animated explainer [Engine Cooling System Trainer: How Engines Stay Cool](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/volkswagen-p1782/>

