

VOLKSWAGEN · POWERTRAIN

**P1788**

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## P1788 · Volkswagen

### Reversing Light Circuit Short To B+

P1788 on Volkswagen vehicles means the transmission control module (TCM) has detected a short to battery positive voltage in the reversing light circuit, which is often integrated with the backup light switch or the transmission range sensor. The TCM monitors the voltage on the reversing light output circuit and flags this code when the voltage stays abnormally high, indicating a short to power rather than a normal switched ground or open circuit.

SYSTEM

**Powertrain**

CODE TYPE

**Volkswagen  
specific**

SEVERITY

**Medium**

FIX DIFFICULTY

**Intermediate**

AREA

**Transmission**

### Symptoms you may notice

- The reversing lights may stay illuminated constantly, even when the gear selector is not in reverse.
- The reverse lights may not work at all when reverse is selected, depending on the nature of the short.
- A warning light on the instrument cluster, often the check engine light or transmission fault indicator.
- The transmission may enter limp mode or exhibit harsh shifting if the TCM detects a critical fault.
- Often no symptoms besides the warning light, especially if the short is intermittent or only affects the reverse light circuit.
- Battery drain if the reversing lights remain on continuously with the ignition off.

### Common causes, most likely first

- 1 Chafed or damaged wiring harness in the reversing light circuit shorting to a positive voltage source.
- 2 Faulty reversing light switch (backup light switch) internally shorted to battery voltage.
- 3 Contamination or corrosion in the connector at the reversing light switch or transmission range sensor causing a short.
- 4 Aftermarket accessories or improper repairs tapping into the reversing light circuit and introducing a short to power.
- 5 A shorted reversing light bulb or socket that allows battery voltage to backfeed into the circuit.
- 6 Internal fault in the transmission control module (TCM) or its connector, though this is less common.
- 7 Damaged insulation on the wiring near the transmission, often due to heat or mechanical wear.



## How to diagnose and fix it

- 1 Verify the code with a Volkswagen-specific scan tool and check for any related codes in the transmission and central electrics modules.
- 2 Inspect the reversing light bulbs and sockets for corrosion, shorted filaments, or signs of overheating, and replace as needed.
- 3 Disconnect the reversing light switch or transmission range sensor and check for battery voltage on the signal circuit with the switch disconnected; if voltage is present, trace the harness for a short to power.
- 4 Perform a wiggle test on the wiring harness while monitoring the reversing light circuit voltage to identify intermittent shorts.
- 5 Check for aftermarket wiring or accessories tapped into the reversing light circuit and remove or repair any improper connections.
- 6 If the short is not found in the external circuit, test the TCM connector for voltage on the reverse light output pin with the TCM disconnected to rule out an internal short.
- 7 Repair or replace the damaged section of the wiring harness, reversing light switch, or TCM as diagnosed, then clear the code and verify the reversing lights operate correctly.

## Reversing light short to B+ pitfalls

- A common misdiagnosis is replacing the transmission control module when the actual short is in the reversing light switch or the wiring harness near the transmission, which is far more likely.
- The reversing light circuit on many Volkswagen models is controlled by the transmission range sensor or a dedicated switch on the gearbox, and a short to voltage can also affect the starting system or cruise control if shared circuits are involved.
- Intermittent shorts often occur where the harness rubs against the transmission housing or battery tray, so a visual inspection of the loom routing is essential before condemning any component.
- A shorted reversing light bulb can backfeed voltage into the circuit and set this code, so always check the bulbs and sockets before diving into complex wiring diagnostics.
- This code does not always mean the reversing lights are faulty; the TCM may set it based on a brief voltage spike, and the lights may still function normally, leading to unnecessary parts replacement.

## Can I keep driving with P1788?

You can generally drive the vehicle with this code, but avoid using reverse gear excessively and be aware that the reversing lights may not function correctly, which is a safety concern in low-light conditions. If the transmission enters limp mode or shifting becomes erratic, stop driving and seek professional diagnosis.



## Tools that help

- Volkswagen-specific scan tool (VCDS or equivalent)
- Digital multimeter
- Wiring diagram for the specific model
- Test light
- Socket set and trim removal tools

## Reading P1788

**P** Powertrain: engine, transmission and emissions.

**1** Manufacturer-specific code (Volkswagen): its meaning depends on the make.

**7** Transmission.

**88** The exact fault within that area.

## Often seen with

**P1787** Reversing Light Circuit Short To Ground · **P1789** Idle Speed Intervention Circuit Error Message From Engine Co · **P1789** Pressure Control Solenoid B Circuit Shorted · **P1789** Pressure Control Solenoid B Circuit Shorted · **P1789** Ignition Supply Malfunction · **P1787** 2-1 Downshift Error · **P1789** Pressure Control Solenoid B Short Circuit · **P0705** Transmission Range Sensor Circuit Malfunction · **P0706** Transmission Range Sensor Circuit Range/Performance · **P0850** Park/Neutral Switch Input Circuit

## 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-p1788/>

