

VOLKSWAGEN · POWERTRAIN

P1606

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1606 · Volkswagen

Rough Road Spec Engine Torque ABS ECU Electrical Malfunction

P1606 on Volkswagen vehicles indicates that the ABS (Anti-lock Braking System) electronic control unit has detected an electrical malfunction in the rough road specification engine torque signal circuit. The ABS module monitors this signal to distinguish between rough road surfaces and actual wheel speed variations, and it sets the code when the expected torque data is missing, out of range, or electrically faulty.

SYSTEM

Powertrain

CODE TYPE

Volkswagen specific

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Computer and output circuits

Symptoms you may notice

- Illumination of the ABS warning light on the instrument cluster
- Traction control or stability control warning light may also be on
- Often no symptoms besides the warning light
- Reduced or disabled ABS function during braking
- Possible intermittent operation of the speedometer or other dashboard gauges
- Engine may enter a reduced power mode in some cases

Common causes, most likely first

- 1 Damaged or corroded wiring in the engine torque signal circuit between the ABS control module and the engine control module
- 2 Faulty ABS wheel speed sensor or its wiring, causing the ABS module to misinterpret rough road signals
- 3 Failed ABS control module (internal electrical fault)
- 4 Poor electrical connection at the ABS module harness connector
- 5 Engine control module (ECM) software issue or faulty ECM not transmitting the correct torque signal
- 6 Blown fuse or relay supplying power to the ABS module
- 7 Ground connection problem for the ABS module or related sensors



How to diagnose and fix it

- 1 Use a scan tool to read all ABS and engine control module fault codes and verify P1606 is current
- 2 Inspect the ABS module harness connector and wiring for corrosion, damage, or loose pins
- 3 Check the ABS fuses and relays in the fuse box and replace if necessary
- 4 Perform a voltage drop test on the ground circuits for the ABS module
- 5 Test the continuity and resistance of the engine torque signal wire between the ABS and engine control modules
- 6 If wiring is intact, substitute a known-good ABS module or reflash the module with the latest software
- 7 Clear the codes and perform a road test to confirm the repair

Rough road signal faults often misdiagnosed

- A weak battery or charging system fault can cause the ABS module to set P1606 because low voltage disrupts the torque signal processing.
- The rough road detection system shares data with the engine control module, so a fault in the CAN bus or other modules can trigger this code even when the ABS module itself is fine.
- Many technicians replace the ABS module unnecessarily; always check the engine torque signal wire for continuity and shorts to ground or power first.
- After replacing the ABS module, coding or adaptation may be required with a factory-level scan tool, otherwise the code may persist.
- Intermittent P1606 codes often trace to a chafed wire near the ABS module connector or a corroded ground point under the battery tray.

Can I keep driving with P1606?

You can usually drive the vehicle with P1606 set, but the ABS and stability control systems may be disabled, reducing safety in emergency braking or slippery conditions. Avoid hard braking and wet or icy roads until the fault is repaired.

Tools that help

- OBD-II scan tool with ABS and manufacturer-specific capabilities
- Digital multimeter
- Wiring diagram for the specific Volkswagen model
- Socket set and trim removal tools
- Factory service information or diagnostic software



Reading P1606

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Volkswagen): its meaning depends on the make.
- 6** Computer and output circuits.
- 06** The exact fault within that area.

Often seen with

P1607 Vehicle Speed Signal Error Message From Instrument Cluster · **P1605** Rough Road Acceleration Sensor Electrical Malfunction · **P1604** Internal Control Module Driver Error · **P1605** Knock Control CPU · **P1607** ECM Internal Circuit Failure A · **P1605** AT Diagnostic Communication Line · **P1605** Powertrain Control Module Keep Alive Memory Test Error · **P1604** Immobilizer System Fault · **P1605** Keep Alive Memory Test Failure · **P1607** MIL Output Circuit · **P1607** ECM Internal Circuit Failure A · **P1605** Loss Of HVAX Serial Data · **P1604** Loss Of IPC Serial Data · **P1607** Engine Oil Level Switch Circuit / Clutch Actuator · **P1605** PCM Keep Alive Memory Test Error · **P1607** CAN Version · **P1604** Control Module Self Test Speed Monitoring · **C0110** ABS Pump Motor Circuit Malfunction · **P0501** Vehicle Speed Sensor Range/Performance

See it working

Watch the animated explainer [How ABS Works: Anti-Lock Brakes in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/volkswagen-p1606/>

