

VOLKSWAGEN · POWERTRAIN

P1628

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1628 · Volkswagen

Data Bus Powertrain Missing Message From Distance Control

P1628 on Volkswagen vehicles means the engine control module (ECM) has lost the CAN (Controller Area Network) powertrain bus message from the distance control module, which is the radar or camera unit behind adaptive cruise control. The ECM expects a continuous status broadcast from that module and sets this code when the message is missing for a defined period, so the fault is a communication dropout rather than a direct radar or engine failure.

SYSTEM

Powertrain

CODE TYPE

Volkswagen specific

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Computer and output circuits

Symptoms you may notice

- Adaptive cruise control (ACC) and distance warning become unavailable, often with a message in the instrument cluster
- A yellow ACC or front assist warning light illuminates, sometimes together with the engine light
- The cruise control may revert to conventional fixed-speed operation or refuse to engage at all
- Forward collision warning and automatic emergency braking may be disabled
- Often no symptoms besides the warning light, with the car driving normally
- Intermittent warnings that appear after a cold start, in wet weather, or over rough roads

Common causes, most likely first

- 1 Damaged, corroded or loose wiring and connector pins in the CAN powertrain circuit between the distance control module and the ECM
- 2 Failed distance control module (radar or camera unit) that no longer transmits on the bus
- 3 Low or unstable voltage supply to the distance control module, including a weak battery or poor ground
- 4 Water ingress into the distance control module connector or housing, common on front-mounted radar units
- 5 CAN bus fault such as a shorted or open twisted pair, or a failed terminating resistor elsewhere on the powertrain bus
- 6 ECM software or coding issue that prevents it from recognising the distance control message
- 7 A different module on the powertrain bus holding the bus down and disrupting all messages



How to diagnose and fix it

- 1 Scan all modules for stored codes and record which modules are offline, then check the distance control module for communication with a capable scan tool
- 2 Inspect the distance control module connector and harness for corrosion, water intrusion, chafing and pushed-back pins, and repair as needed
- 3 Measure battery voltage and charging output, and load-test the battery, because low voltage commonly drops the module off the bus
- 4 Check the CAN powertrain bus resistance and continuity at the diagnostic connector to rule out a bus wiring fault
- 5 Verify the distance control module has power and ground at its connector with the ignition on, and repair any supply fault
- 6 If wiring and power are good, substitute a known-good distance control module or perform guided fault finding with a Volkswagen-compatible diagnostic tool
- 7 After repair, clear codes and perform the required calibration or adaptation of the distance control module so ACC functions correctly

What most technicians miss on P1628

- A weak battery or failing alternator is a frequent root cause because the distance control module drops offline during cranking, setting P1628 without any fault in the radar unit itself.
- Water ingress into the front radar connector causes intermittent missing messages that only appear in rain or after washing, so a dry-weather scan can look clean.
- P1628 does not always mean the distance control module has failed; a single chafed CAN wire or a corroded pin can produce the same missing message.
- Other modules on the powertrain bus can hold the bus down and cause P1628 as a secondary code, so always check whether multiple modules are reporting communication faults.
- Replacing the distance control module without calibration leaves ACC inoperative and can set the code again, so the calibration step is not optional.

Can I keep driving with P1628?

The car remains safe to drive because the fault disables driver assistance rather than affecting engine or braking control, but you should not rely on adaptive cruise control or forward collision warning until it is repaired. Avoid long trips where you depend on ACC, and have the fault diagnosed promptly if the warning light is accompanied by other communication codes.



Tools that help

- Volkswagen-compatible scan tool with CAN bus and module communication capability
- Digital multimeter for voltage, ground and CAN bus resistance checks
- Battery load tester and charging system tester
- Wiring diagram and connector pinout for the distance control module circuit
- Trim removal tools and contact cleaner for connector inspection
- Oscilloscope for CAN bus signal analysis if intermittent faults persist

Reading P1628

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

Often seen with

P1612 Engine Control Module Incorrect Coding · **P1612** IFI Control Module N37 Voltage Circuit 15 · **P1612** Throttle Offset Malfunction · **P1612** Loss Of IPM Serial Data · **P0562** System Voltage Low · **U0100** Lost Communication With ECM/PCM A · **U0122** Lost Communication With Vehicle Dynamics Control Module

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-p1628/>

