

VOLKSWAGEN · POWERTRAIN

P1864

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1864 · Volkswagen

Data Bus Powertrain Missing Message From ADR Control Module

P1864 on Volkswagen vehicles means the engine control module (ECM) has lost the controller area network (CAN) message from the ADR control module, which is the module responsible for the automatic dimming rear-view mirror and rain sensor. The ECM monitors the powertrain CAN bus and sets this code when the expected periodic message from the ADR module stops arriving, indicating a communication fault rather than a direct failure of the mirror or rain sensor itself.

SYSTEM

Powertrain

CODE TYPE

Volkswagen specific

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Transmission

Symptoms you may notice

- The malfunction indicator lamp (MIL) illuminates steadily with no other obvious dashboard warnings.
- Often no symptoms besides the warning light, because the ADR functions are not part of the engine management strategy.
- The automatic dimming rear-view mirror may stop dimming at night or the rain sensor may stop triggering the wipers correctly.
- Intermittent wiper operation may become erratic or default to a fixed interval.
- A stored code may be accompanied by other CAN communication codes if the bus fault is widespread.
- The mirror or rain sensor may work normally on some drive cycles, making the fault appear intermittent.

Common causes, most likely first

- 1 Damaged or chafed wiring in the harness between the ADR module and the CAN bus, often at the mirror base or headliner.
- 2 Corroded or loose electrical connectors at the ADR module, rain sensor, or mirror assembly.
- 3 Failed ADR control module internal fault causing it to stop transmitting on the CAN bus.
- 4 Low voltage or a weak battery causing the ADR module to drop off the bus during cranking or under load.
- 5 Water ingress into the mirror housing or headliner area corroding the module or its connectors.
- 6 A faulty rain sensor or mirror assembly drawing down or disrupting the ADR module's communication line.
- 7 CAN bus wiring fault elsewhere on the powertrain bus that selectively affects the ADR module's messages.



How to diagnose and fix it

- 1 Verify battery voltage and charging system output, then clear the code and test-drive to see if P1864 returns.
- 2 Inspect the ADR module connectors and the mirror base wiring for corrosion, water damage, or loose pins.
- 3 Check the CAN bus wiring continuity and resistance between the ADR module and the ECM or gateway, looking for opens or shorts.
- 4 Substitute a known-good ADR module or rain sensor to confirm whether the module itself is failing to transmit.
- 5 Repair or replace damaged harness sections and clean connectors with electrical contact cleaner, then retest.
- 6 Perform a CAN bus communication test with a scan tool to confirm all modules are present and the ADR module responds.
- 7 After repair, clear codes and complete a drive cycle to verify the ADR message is restored and P1864 does not reset.

ADR module faults that mimic bus failures

- A common misdiagnosis is replacing the ECM or gateway when the real fault is a corroded connector at the mirror base that interrupts the ADR module's CAN message.
- The ADR module often shares a power or ground circuit with the rain sensor, so a failing rain sensor can pull down the module and set P1864 without any mirror symptom.
- Water tracking down the windshield or through the roof antenna can reach the ADR module and cause intermittent communication loss that only appears after rain or a car wash.
- Because the ADR module is not required for engine operation, many drivers ignore P1864, but the underlying bus fault can spread and disable other modules if left unrepaired.
- A weak battery that drops below 12 volts during cranking can cause the ADR module to reset and miss its CAN message, setting P1864 even though all components are healthy.

Can I keep driving with P1864?

The vehicle remains safe to drive because the ADR module only controls the dimming mirror and rain sensor, but avoid ignoring repeated warnings since a spreading CAN bus fault could eventually affect other systems. Have the wiring and connectors inspected soon, especially if other electrical gremlins appear.

Tools that help

- OBD-II scan tool with Volkswagen-specific CAN bus diagnostics
- Digital multimeter for voltage, resistance, and continuity checks
- Wiring diagram for the ADR module and CAN bus circuits
- Trim removal tools for accessing the mirror base and headliner
- Electrical contact cleaner and dielectric grease



Reading P1864

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

Often seen with

P1863 Data Bus Powertrain Missing Message From Steering Angle Sens · **P1865** Data Bus Powertrain Missing Message From Central Electronics · **U0140** Lost Communication With Instrument Panel Cluster · **U0155** Lost Communication With Body Control Module · **U0164** Lost Communication With HVAC Control Module

See it working

Watch the animated explainer [How a Catalytic Converter Works: 3D Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/volkswagen-p1864/>

