

JAGUAR · POWERTRAIN

P1796

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1796 · Jaguar

CAN Controller Circuit Bus Off

P1796 on a Jaguar means the Controller Area Network (CAN) bus has entered the bus-off state, which happens when the CAN controller in a module detects too many transmit errors and disconnects itself from the network. The module that sets this code has logged a communication failure severe enough to shut down its own bus transmitter, so other modules can no longer exchange data with it.

SYSTEM

Powertrain

CODE TYPE

Jaguar specific

SEVERITY

High

FIX DIFFICULTY

Professional

AREA

Transmission

Symptoms you may notice

- Multiple warning lights on the instrument cluster, often including ABS, traction control, and transmission fault messages
- The engine may start and run but the transmission can default to limp mode or refuse to shift normally
- Intermittent or complete failure of dashboard gauges, climate control, or central locking
- The car may crank but not start if the affected module is one the immobiliser or engine control system depends on
- Often no symptoms besides the warning light if the bus-off event was brief and the module recovered
- Stored communication codes in several other modules alongside P1796

Common causes, most likely first

- 1 Damaged or chafed CAN wiring harness, especially where it passes through the bulkhead or near the transmission
- 2 Corroded or loose connector pins at a module on the CAN network, commonly the transmission control module or body control module
- 3 A failed CAN transceiver inside one of the modules, which pulls the bus down and forces other nodes into bus-off
- 4 Water ingress into a module connector or into the wiring loom in the boot or under the sill
- 5 A shorted CAN high or CAN low wire to ground or to battery voltage, often from a pinched loom
- 6 Terminating resistor failure inside a module, which corrupts the differential signal on the bus
- 7 Low battery voltage or a failing alternator causing modules to drop offline and log bus-off errors



How to diagnose and fix it

- 1 Read all stored codes from every module on the vehicle, not just the engine ECU, to identify which module first reported P1796 and which nodes are missing from the network
- 2 Check battery voltage and charging system output, because low voltage is a common trigger for spurious bus-off events
- 3 Inspect the CAN wiring harness visually for chafing, corrosion, and water damage, paying attention to known routing points on the model
- 4 Measure resistance between CAN high and CAN low at the diagnostic connector with the battery disconnected; a reading near 60 ohms confirms the terminating resistors are intact, while a very low or open reading points to a wiring or module fault
- 5 Disconnect modules one at a time from the CAN network and recheck communication to isolate the node that is pulling the bus down
- 6 Repair or replace the faulty section of harness or the affected connector pins, then clear codes and verify that all modules communicate
- 7 If a module is confirmed faulty, replace or reprogram it and perform any required configuration or adaptation procedures

Why bus-off codes mislead Jaguar owners

- P1796 is often stored as a secondary code after a low-voltage event, so replacing modules before checking the battery and charging system wastes money and does not fix the root cause.
- A single failing module can force every other module on the bus to log communication codes, so the module that reports P1796 is not always the module that is at fault.
- Jaguar models share CAN wiring routing that is prone to chafing behind the dashboard and near the gearbox, and a visual inspection of those areas often finds the fault before any parts are replaced.
- After a bus-off event the module may recover and clear its own fault, leaving only a stored code with no current symptom, which makes intermittent wiring faults easy to miss during a short test drive.
- Some scan tools cannot communicate with modules that are in bus-off state, so a no-communication condition on one module combined with P1796 in another is a strong clue to a wiring or transceiver fault rather than a dead module.

Can I keep driving with P1796?

Do not continue driving normally when P1796 is active, because the vehicle may enter limp mode or lose critical module communication without warning. Have the car diagnosed promptly, and if multiple warning lights are present, stop driving and arrange recovery rather than risk a loss of power or control.



Tools that help

- Jaguar-compatible diagnostic scan tool with full module communication capability
- Digital multimeter with resistance and voltage measurement
- Oscilloscope for viewing CAN bus waveforms
- Wiring diagram for the specific Jaguar model and year
- Back probe pins and breakout box for testing connectors without damage

Reading P1796

P Powertrain: engine, transmission and emissions.

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

7 Transmission.

96 The exact fault within that area.

Often seen with

P0700 Transmission Control System Malfunction · **U0001** Loss of Bus Communication · **U0100** Lost Communication With ECM/PCM A · **U0101** Lost Communication with TCM · **U0121** Lost Communication With Anti-Lock Brake System (ABS) Control

See it working

Watch the animated explainer [How Airbags Work: A 50 km/h Crash in Slow Motion](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/jaguar-p1796/>

