

GENERIC · POWERTRAIN

P04D4

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P04D4

Exhaust Brake Input Circuit Range/Performance

P04D4 indicates that the powertrain control module (PCM) has detected an out-of-range or performance fault in the electrical circuit for the exhaust brake input. The exhaust brake is an engine-braking aid used on diesel vehicles to slow the vehicle and reduce service brake wear, and the PCM expects a specific voltage or signal pattern from its input circuit; when that signal falls outside the expected range or does not change as anticipated, this code is stored.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Auxiliary emission controls

Symptoms you may notice

- The exhaust brake may fail to engage when the driver activates the switch, reducing engine-braking effect on downgrades.
- The amber malfunction indicator lamp (MIL) illuminates on the dashboard.
- A message such as 'Exhaust Brake System Fault' may appear in the driver information center on vehicles so equipped.
- The exhaust brake may engage unexpectedly or remain on when it should be off, causing rough deceleration or poor drivability.
- Often no symptoms besides the warning light, especially if the fault is intermittent or only affects a redundant signal path.
- On vehicles with integrated cruise control or tow-haul modes, those features may be inhibited or behave erratically.

Common causes, most likely first

- A faulty exhaust brake input switch, including worn contacts or internal failure, is the most common cause.
- Damaged, chafed, or corroded wiring in the exhaust brake input circuit, often near the switch or along the steering column.
- A poor electrical connection at the switch connector or at the PCM harness, including loose pins or water intrusion.
- An open or shorted exhaust brake input circuit, such as a broken wire or a short to ground or voltage.
- A failed exhaust brake actuator or solenoid that feeds back an incorrect signal to the PCM, though this is less common.
- A software or calibration issue in the PCM that misinterprets the input signal, sometimes resolved by a reflash.
- Rarely, an internal PCM fault affecting the input processing circuit.



How to diagnose and fix it

- 1 Connect a scan tool and retrieve all stored and pending codes, then clear them and test-drive to see if P04D4 returns, confirming whether the fault is hard or intermittent.
- 2 Inspect the exhaust brake input switch and its connector for physical damage, corrosion, or loose pins, and check that the switch operates smoothly through its range.
- 3 Use a digital multimeter to check for reference voltage and ground at the switch connector with the key on, engine off, comparing readings to the manufacturer's specification.
- 4 Perform a wiggle test on the harness while monitoring the exhaust brake input parameter on the scan tool to reveal intermittent wiring faults.
- 5 Check the resistance or continuity of the input circuit from the switch to the PCM, looking for opens or shorts, and repair any damaged wire sections.
- 6 If the circuit and switch test good, substitute a known-good switch or actuator to see if the code resolves, then replace the faulty component if confirmed.
- 7 As a final step, check for technical service bulletins (TSBs) or calibration updates for the PCM that address exhaust brake input signal processing, and reflash if applicable.

What the exhaust brake input code hides

- Many exhaust brake input switches are simple momentary contacts, so a switch that feels fine to the driver can still have high resistance that the PCM flags as out of range.
- A common misdiagnosis is replacing the exhaust brake actuator or solenoid when the real problem is a chafed wire behind the dashboard or near the pedal assembly.
- The PCM may set P04D4 if the input signal is plausible but does not change state within an expected time after the driver presses the switch, so a slow or sticky switch can trigger it without any open circuit.
- On some vehicles, the exhaust brake input is shared with or affected by the tow/haul mode switch or cruise control circuitry, so faults in those systems can set this code.
- Intermittent P04D4 codes often appear after exposure to moisture or road splash, so checking for water intrusion in connectors is worthwhile before condemning any component.

Can I keep driving with P04D4?

You can generally continue driving with P04D4 because the exhaust brake is an auxiliary system and does not affect basic engine operation, but you should avoid relying on engine braking on long downgrades and avoid towing heavy loads until the fault is repaired. If the exhaust brake engages unexpectedly, drive cautiously and have the vehicle inspected promptly.



Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the exhaust brake circuit
- Test light or jumper wires
- Socket set and trim removal tools

Reading P04D4

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
4	Auxiliary emission controls.
D4	The exact fault within that area.

Often seen with

P04D5 Exhaust Brake Input Circuit Low · **P04D6** Exhaust Brake Input Circuit High · **P04D7** Exhaust Brake Input Circuit Intermittent/Erratic · **P04D8** Excessive Time To Enter Closed Loop EGR Control · **P04D9** Closed Loop EGR Control At Limit - Flow Too Low

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/p04d4/>

