

GENERIC · POWERTRAIN

P04D3

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## P04D3

### Exhaust Brake Input Circuit

P04D3 indicates that the powertrain control module (PCM) has detected an abnormal condition in the electrical circuit for the exhaust brake input, which is the signal used to request activation of the exhaust brake system. The PCM monitors voltage or resistance on this circuit and sets the code when the signal falls outside the expected range, often due to an open, short, or faulty switch.

|            |                     |          |                |                             |
|------------|---------------------|----------|----------------|-----------------------------|
| 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 on downhill grades.
- The amber malfunction indicator lamp (MIL) illuminates on the dashboard.
- The exhaust brake may engage unexpectedly or remain on continuously, causing excessive backpressure and reduced power.
- Often no symptoms besides the warning light, especially if the fault is intermittent or only affects the input signal under specific conditions.
- In some vehicles, the transmission may hold lower gears longer or shift differently due to the PCM altering strategies when the exhaust brake is unavailable.

### Common causes, most likely first

- Faulty exhaust brake input switch, such as worn contacts or internal failure, is the most common cause.
- Damaged or corroded wiring in the exhaust brake input circuit, including opens, shorts to ground, or shorts to voltage.
- Loose or corroded electrical connectors at the switch, PCM, or inline harness connectors.
- Failed exhaust brake control module or relay, if the vehicle uses a separate controller for the exhaust brake system.
- PCM software issue or internal fault, though this is less common and usually requires reprogramming or replacement.
- Aftermarket accessories or poor previous repairs tapping into the circuit and causing signal interference.



## How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related codes in other modules, then clear the code and test-drive to see if it returns.
- 2 Inspect the exhaust brake input switch for proper operation using a multimeter to check continuity or voltage signal when the switch is pressed and released.
- 3 Visually inspect all wiring and connectors in the exhaust brake input circuit for damage, corrosion, or loose pins, and repair as needed.
- 4 Check the exhaust brake control module or relay (if equipped) by testing for power and ground signals and substituting with a known-good unit if possible.
- 5 Measure resistance or voltage on the signal wire between the switch and the PCM to confirm the integrity of the circuit, comparing to manufacturer specifications.
- 6 If all external components and wiring test good, suspect the PCM and perform a thorough diagnosis including checking for software updates or internal faults before replacement.

## Exhaust Brake Input Circuit Pitfalls

- A common mistake is replacing the exhaust brake switch without first checking the ground circuit, as a poor ground can mimic a faulty switch and set P04D3.
- The code can be set by a momentary glitch in the signal, so intermittent faults may not be present during a quick inspection; a wiggle test of the harness while monitoring live data is often needed.
- On vehicles with integrated exhaust brake control in the PCM, a failing exhaust brake solenoid or mechanical issue can sometimes cause the PCM to set an input circuit code as a secondary effect, so don't overlook the output side.
- Aftermarket exhaust brake kits or modified wiring for accessories can introduce voltage spikes or resistance changes that trigger P04D3, so always check for non-factory modifications.
- The exhaust brake input circuit may share a connector or ground with other systems, so a fault in a related circuit can cause this code to appear alongside others, requiring a holistic diagnosis.

## Can I keep driving with P04D3?

You can generally continue driving with P04D3, but the exhaust brake may not function, which reduces engine braking on long descents and can increase brake wear. Avoid heavy loads or steep downhill grades until the fault is repaired, and do not rely on the exhaust brake for speed control.

## Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Test light
- Electrical contact cleaner and dielectric grease



### Reading P04D3

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 4** Auxiliary emission controls.
- D3** The exact fault within that area.

### Often seen with

**P04D4** Exhaust Brake Input Circuit Range/Performance · **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

### 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/p04d3/>

