



P04D6

Exhaust Brake Input Circuit High

P04D6 indicates that the powertrain control module (PCM) has detected an abnormally high voltage on the exhaust brake input circuit, which is used to signal the exhaust brake system to engage. The PCM expects a specific voltage range on this circuit and flags the code when the signal exceeds the upper threshold, typically due to a short to voltage or an open circuit.

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 activated, reducing engine braking on downhill grades.
- The amber warning light on the dashboard illuminates to alert the driver.
- In some vehicles, the exhaust brake may engage unexpectedly or remain engaged, causing a dragging sensation.
- A stored code P04D6 is set, and the PCM may enter a failsafe mode that disables the exhaust brake function.
- Often no symptoms besides the warning light, especially if the exhaust brake is not frequently used.

Common causes, most likely first

- 1 A short to voltage in the exhaust brake input circuit wiring, often due to chafed insulation or contact with a power source.
- 2 An open circuit in the exhaust brake input circuit, such as a broken wire or disconnected connector.
- 3 A faulty exhaust brake switch or sensor that sends an incorrect high-voltage signal.
- 4 Corrosion or water intrusion in the exhaust brake circuit connectors, leading to high resistance or intermittent shorts.
- 5 A malfunctioning powertrain control module (PCM) that misinterprets the input signal, though this is less common.
- 6 Aftermarket accessories or modifications that tap into the exhaust brake circuit and introduce voltage spikes.



How to diagnose and fix it

- 1 Use a scan tool to verify the code and check for any related codes in the exhaust brake system.
- 2 Inspect the exhaust brake switch and connector for damage, corrosion, or loose pins; clean or replace as needed.
- 3 Perform a visual inspection of the wiring harness from the switch to the PCM, looking for chafed wires, burns, or signs of shorting to voltage.
- 4 Use a digital multimeter to measure voltage on the exhaust brake input circuit at the PCM connector; compare to manufacturer specifications.
- 5 Disconnect the exhaust brake switch and check for voltage on the signal wire with the key on; if voltage is present, trace and repair the short to voltage.
- 6 Check for continuity in the circuit between the switch and PCM; repair any open circuits or high-resistance connections.
- 7 If all wiring and components test good, suspect a faulty PCM; reprogram or replace it only after confirming power and ground integrity.

Exhaust brake circuit high-voltage traps

- A common oversight is assuming the exhaust brake switch is faulty when the real problem is a short to voltage in a wire that runs near a heat source or moving component, causing insulation damage.
- The code can be set by a poor ground connection at the exhaust brake solenoid or PCM, which raises the reference voltage on the input circuit and mimics a high signal.
- Technicians often miss that aftermarket wiring for accessories like trailer brakes or auxiliary lights can backfeed voltage into the exhaust brake circuit, triggering P04D6.
- On some vehicles, the exhaust brake input circuit is shared with the tow/haul mode switch, so a fault in that switch can set P04D6 even though the exhaust brake itself is fine.
- Clearing the code without repairing the underlying high-voltage condition will usually result in the code returning quickly, especially under vibration or temperature changes.

Can I keep driving with P04D6?

You can generally continue driving with P04D6, but the exhaust brake may be inoperative, 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 have the circuit inspected promptly to prevent potential brake overheating.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Wiring diagram for the exhaust brake circuit
- Electrical contact cleaner
- Basic hand tools for trim and connector removal



Reading P04D6

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 4** Auxiliary emission controls.
- D6** The exact fault within that area.

Often seen with

P04D5 Exhaust Brake Input Circuit Low · **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 · **P04DA** Closed Loop EGR Control At Limit - Flow Too High

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/p04d6/>

