

GENERIC · POWERTRAIN

P2C4C

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2C4C

Clutch Actuator Position Sensor Circuit Low

P2C4C means the clutch actuator position sensor is reporting a voltage or signal below the expected range to the transmission control module. The computer has detected that the sensor circuit is low, which can prevent the clutch from engaging or disengaging correctly.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Hybrid propulsion

Symptoms you may notice

- Illuminated check engine light or transmission warning light
- Difficulty shifting gears or a slipping clutch
- The vehicle may refuse to start or move from a stop
- Erratic clutch engagement or a shudder during takeoff
- Often no symptoms besides the warning light, especially if the fault is intermittent

Common causes, most likely first

- 1 Faulty clutch actuator position sensor
- 2 Damaged or corroded wiring harness or connector at the sensor
- 3 Poor electrical ground connection for the sensor circuit
- 4 Open or shorted signal wire between the sensor and the control module
- 5 Failed clutch actuator assembly causing the sensor to read out of range
- 6 Low fluid level or air in the clutch hydraulic system affecting actuator position
- 7 Transmission control module software or internal fault



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to understand when the fault occurs
- 2 Visually inspect the clutch actuator position sensor, its connector, and the wiring harness for damage, corrosion, or loose pins
- 3 Check the sensor's reference voltage and ground at the connector with a multimeter, comparing to manufacturer specifications
- 4 Test the signal wire for continuity and shorts to ground or power, repairing any damaged sections
- 5 Verify clutch hydraulic fluid level and bleed the system if air is suspected, as low fluid can affect actuator position
- 6 Replace the clutch actuator position sensor if electrical tests confirm it is faulty, then clear codes and perform a relearn procedure
- 7 If the fault persists, diagnose the clutch actuator assembly and transmission control module according to service information

Before replacing the clutch actuator sensor

- A low sensor signal often comes from a bad ground connection rather than a failed sensor, so check ground points before condemning parts.
- The clutch actuator position sensor is sometimes integrated into the actuator assembly and cannot be replaced separately, so verify part design first.
- After any repair, a clutch actuator relearn or calibration procedure is usually required, or the code may reset immediately.
- Intermittent low signals can be caused by wire chafing where the harness flexes near the transmission, which visual inspection may miss without wiggling the harness.
- A weak battery or charging system fault can cause low reference voltage to the sensor, mimicking a sensor failure.

Can I keep driving with P2C4C?

If the vehicle drives normally, you can drive cautiously to a repair shop, but avoid aggressive clutch use or heavy loads. If the clutch slips, the vehicle fails to move, or shifting becomes difficult, stop driving and have it towed to prevent further damage.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wire repair kit with crimpers and heat shrink
- Vehicle service information for wiring diagrams and specifications
- Basic hand tools for trim and connector removal



Reading P2C4C

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- C** Hybrid propulsion.
- 4C** The exact fault within that area.

Often seen with

P0805 Clutch Position Sensor Circuit · **P0806** Clutch Position Sensor Circuit Range/Performance · **P2C4D** Clutch Actuator Position Sensor Circuit High · **P2C4E** Clutch Actuator Position Sensor Circuit Intermittent/Erratic · **P2C4F** Clutch Actuator Performance

See it working

Watch the animated explainer [Manual Car Driving Simulator: Learn Clutch Control](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2c4c/>

