

GENERIC · POWERTRAIN

P0591

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0591

Cruise Control Multi-Function Input 'B' Circuit Range/Performance

P0591 indicates that the cruise control multi-function input 'B' circuit is reporting a range or performance problem, meaning the powertrain control module (PCM) sees a signal voltage or switch state that does not match what it expects for the current steering-wheel or stalk inputs. The PCM compares the voltage on the 'B' signal line against calibrated limits and sets this code when the value stays outside the acceptable window or changes in an implausible pattern.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Vehicle speed, idle control and auxiliary inputs

Symptoms you may notice

- Cruise control fails to engage or disengages unexpectedly while driving
- Steering-wheel or stalk cruise buttons feel unresponsive or require repeated presses
- The cruise indicator light may flash or stay off when you try to set a speed
- Other steering-wheel-mounted controls (horn, audio, phone) may act erratically if they share the same clock spring
- Often no symptoms besides the warning light, especially if the fault is intermittent
- The vehicle may default to a reduced-function cruise mode or refuse to resume a previously set speed

Common causes, most likely first

- 1 Faulty cruise control switch assembly on the steering wheel or stalk, including worn contacts or internal resistance drift
- 2 Damaged or chafed wiring in the steering column or clock spring (spiral cable) that carries the multi-function input signals
- 3 Poor electrical connection at the switch connector or the PCM harness, such as corrosion or a backed-out terminal
- 4 Clock spring internal failure causing intermittent or out-of-range resistance on the 'B' circuit
- 5 PCM software calibration issue or internal driver fault on the multi-function input circuit (less common)
- 6 Aftermarket accessories or improper previous repairs tapping into the steering column wiring and altering signal voltage



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, then record freeze-frame data for P0591 to see the switch voltage or state at the moment of failure
- 2 Inspect the cruise control switch assembly and its connector for physical damage, corrosion, or loose terminals, and clean or reseat as needed
- 3 Use a scan tool to view live cruise control switch data while pressing each button; compare the reported state or voltage to the service information specification
- 4 Perform a resistance and continuity test on the 'B' signal circuit from the switch to the PCM, including the clock spring, while wiggling the steering wheel to catch intermittent opens
- 5 Check the clock spring for continuity and signs of wear, and replace it if resistance is out of specification or fluctuates during rotation
- 6 If the circuit and switch test good, verify PCM pin fit and terminal tension at the connector, and check for water intrusion or chafed harness routing
- 7 Clear the code and perform a road test with cruise control engaged, then recheck for return of the fault; follow the manufacturer's diagnostic flow for PCM replacement only after all other steps pass

Before you replace the cruise switch assembly

- A clock spring that is beginning to fail often causes P0591 before any airbag warning appears, so continuity through the spiral cable must be tested while turning the wheel, not just at center.
- The PCM may set this code from a single implausible voltage spike caused by a dirty switch contact, so cleaning the switch contacts and clearing the code can resolve it without parts replacement.
- Aftermarket steering-wheel covers or phone mounts that pinch the column wiring can distort the 'B' circuit signal and trigger this code intermittently.
- Some vehicles share the multi-function input 'B' line with the horn or audio controls, so a fault in those circuits can set P0591 even when cruise control seems to work normally.
- A weak or failing battery can cause momentary voltage drops that the PCM interprets as an out-of-range switch signal, so always verify charging system health before condemning the switch.

Can I keep driving with P0591?

The vehicle remains safe to drive because P0591 affects only cruise control functionality and does not impair throttle control, braking, or steering. Avoid using cruise control until the fault is repaired, especially in traffic or on wet roads, and address the code promptly if you rely on cruise control for long drives.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with resistance and continuity functions
- Steering wheel puller and trim removal tools
- Service information or wiring diagram for the cruise control circuit
- Test light or jumper wires for circuit verification

Reading P0591

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
5	Vehicle speed, idle control and auxiliary inputs.
91	The exact fault within that area.

Often seen with

P0564 Cruise Control Multi-Function Input 'A' Circuit · **P0589** Cruise Control Multi-Function Input 'B' Circuit · **P0590** Cruise Control Multi-Function Input 'B' Circuit Stuck · **P0592** Cruise Control Multi-Function Input 'B' Circuit Low · **P0593** Cruise Control Multi-Function Input 'B' Circuit High

See it working

Watch the animated explainer [How a Six-Speed Manual Gearbox Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0591/>

