

MAZDA · POWERTRAIN

P1196

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1196 · Mazda

Ignition Switch Start Circuit

P1196 on Mazda vehicles indicates that the powertrain control module (PCM) has detected an unexpected condition in the ignition switch start circuit, which is the path that tells the computer the key has been turned to the start position. The PCM monitors this circuit for voltage consistency and sets the code when the signal does not match the expected state during cranking or when the circuit is open or shorted.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Mazda specific	Medium	Intermediate	Fuel and air metering

Symptoms you may notice

- The engine may crank but not start, or may not crank at all depending on the exact circuit fault
- Intermittent no-start condition where the engine sometimes starts normally and other times does not
- The security or immobilizer indicator may flash or stay on when the key is turned
- The starter may not engage, and you may hear a single click or nothing at all
- Often no symptoms besides the warning light if the fault is stored but the circuit still functions intermittently
- Other electrical accessories may behave erratically if the ignition switch contacts are worn

Common causes, most likely first

- Worn or faulty ignition switch assembly, especially the start contact inside the switch
- Damaged or corroded wiring between the ignition switch and the PCM or starter relay
- Loose or corroded ground connection at the engine block or chassis
- Faulty starter relay or starter solenoid that back-feeds the start signal circuit
- Blown fuse or fusible link in the start circuit, often caused by a shorted wire
- Aftermarket alarm or remote start system improperly spliced into the start circuit
- PCM internal fault, though this is rare compared to switch and wiring issues



How to diagnose and fix it

- 1 Verify battery voltage and condition, then check all fuses and fusible links related to the ignition and start circuits
- 2 Inspect the ignition switch connector and wiring for corrosion, loose pins, or chafed insulation
- 3 Test the ignition switch start contact with a multimeter for continuity and voltage drop while turning the key to start
- 4 Check the starter relay and solenoid operation, including any aftermarket alarm or remote start wiring
- 5 Perform a voltage drop test on the ground circuit from the engine block to the battery negative terminal
- 6 If the circuit tests good, use a scan tool to monitor the PCM start signal input and compare with actual key position
- 7 Replace the ignition switch or repair the wiring as needed, then clear the code and verify the start circuit operates correctly

What a Mazda start circuit code really means

- A worn ignition switch often causes intermittent no-start conditions before the code sets permanently, so testing the switch while wiggling the key can reveal the fault when a static test passes.
- Aftermarket remote start or alarm systems are a common culprit because they splice into the start circuit and can introduce resistance or back-feed voltage that the PCM interprets as a fault.
- The code can be stored by a momentary voltage dip during cranking that does not prevent starting, so the vehicle may start fine every time you try it and still have a pending P1196.
- A weak battery or poor ground can cause the PCM to see an unexpected start signal voltage, so always load-test the battery and check grounds before condemning the ignition switch.
- On some Mazda models, the PCM monitors the start signal through the immobilizer system, so a failing key transponder or receiver can set this code even when the physical switch is fine.

Can I keep driving with P1196?

If the engine starts and runs normally, you can drive to a repair shop, but avoid shutting the engine off in a location where a no-start would be dangerous. If the engine will not crank or start, do not attempt to push-start or repeatedly crank the engine, as this can damage the starter or drain the battery.

Tools that help

- Digital multimeter
- Test light
- Scan tool with Mazda-specific software
- Wiring diagram for the specific Mazda model
- Basic hand tools for trim and switch removal



Reading P1196

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Mazda): its meaning depends on the make.
- 1** Fuel and air metering.
- 96** The exact fault within that area.

Often seen with

P1195 EGR Boost Sensor Circuit · **P1195** EGR Boost Or Pressure Sensor Circuit Fault · **P1195** O2 Sensor Heater Circuit Low Resistance Fault 1 · **P1195** O2 Sensor 1/1 (Bank 1 Sensor 1) Slow During Catalyst Monitor · **P1195** SCP HBCC Failed To Initialize · **P1195** O2 Sensor 1/1 (Bank 1 Sensor 1) Slow During Catalyst Monitor · **P0512** Starter Request Circuit · **P0513** Incorrect Immobilizer Key · **P0600** Serial Communication Link Malfunction

See it working

Watch the animated explainer [Four-Stroke Engine Cutaway: Intake to Exhaust](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/mazda-p1196/>

