

KIA · POWERTRAIN

P1634

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1634 · Kia

## Alternator B Open 1.8L

P1634 on Kia vehicles with the 1.8L engine indicates that the powertrain control module (PCM) has detected an open circuit on the alternator's 'B' control wire, which is the feedback or control line used to monitor and regulate charging. The PCM expects a specific voltage or signal on this circuit when the engine is running, and an open circuit means no signal is reaching the module.

| SYSTEM     | CODE TYPE    | SEVERITY | FIX DIFFICULTY | AREA                         |
|------------|--------------|----------|----------------|------------------------------|
| Powertrain | Kia specific | Medium   | Intermediate   | Computer and output circuits |

### Symptoms you may notice

- Battery warning light illuminated on the dashboard
- Dimming headlights or interior lights, especially at idle
- Battery repeatedly going dead or needing jumps
- Electrical accessories such as radio or power windows operating sluggishly
- Often no symptoms besides the warning light if the alternator still charges normally

### Common causes, most likely first

- Broken or disconnected wire in the alternator 'B' control circuit
- Corroded or loose connection at the alternator or PCM harness
- Failed alternator voltage regulator or internal open circuit
- Blown fuse or fusible link in the charging system circuit
- Faulty PCM driver for the alternator control circuit (rare)

### How to diagnose and fix it

- Inspect the alternator 'B' control wire and connector for damage or corrosion
- Check all fuses and fusible links related to the charging system
- Measure resistance and continuity of the 'B' circuit from alternator to PCM
- Test alternator output and voltage regulator operation with a multimeter
- Repair or replace any damaged wiring or connectors
- Replace the alternator if internal open circuit is confirmed
- Clear the code and verify the repair with a test drive



## Don't replace the alternator before checking this

- A loose or corroded ground connection at the engine block can mimic an open 'B' circuit and set P1634 without any alternator fault.
- Some Kia models use a dedicated alternator control module that can fail independently of the alternator itself, so testing the module is essential.
- The code can set intermittently due to vibration or heat affecting a marginal wire, so a wiggle test of the harness while monitoring live data is a smart step.
- Aftermarket accessories wired into the charging circuit can introduce resistance that triggers P1634, so check for non-factory wiring.
- P1634 can be stored alongside charging system codes like P0562 or P0563, which may help confirm whether the issue is circuit-related or regulator-related.

## Can I keep driving with P1634?

You can drive short distances to a repair shop if the battery is fully charged and the alternator is still charging, but avoid long trips or heavy electrical loads. If the battery light is on and voltage is dropping, stop driving to prevent a no-start or stall.

## Tools that help

- Digital multimeter
- OBD-II scan tool
- Wire probe and jumper wires
- Fuse puller
- Service manual with wiring diagrams

## Reading P1634

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Kia): its meaning depends on the make.
- 6** Computer and output circuits.
- 34** The exact fault within that area.

## Often seen with

**P1633** Accelerator Pedal Position Sensor 2 Signal Too Low · **P1635** Data Bus Powertrain Missing Message From Air Condition Contr · **P1633** ECM · **P1633** Battery Overcharge Fault · **P1633** Battery Overcharge · **P1633** Ignition Power Circuit Low Voltage · **P1635** 5V Reference Voltage to Sensors Low · **P1635** Tire Axle Ratio Out of Acceptable Range · **P1633** Throttle Valve Adaptation Limp Home Position · **P1635** Throttle Valve Adaptation Lower Mechanical Stop Not Adapted · **P0562** System Voltage Low · **P0563** System Voltage High · **P0620** Generator Control Circuit Malfunction



### See it working

Watch the animated explainer **Fuel Trims Explained: Short-Term and Long-Term** on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/kia-p1634/>

