

GENERIC · NETWORK

# U3500

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## U3500

### Control Module Input Power A Circuit Range/Performance

U3500 indicates that a control module has detected an out-of-range or performance issue with its 'A' input power circuit, which is typically the main power feed to the module. The computer monitors voltage on this circuit and sets the code when the signal falls outside the expected range for a calibrated time, often due to low voltage, high resistance, or an intermittent connection.

|         |                     |          |                |                       |
|---------|---------------------|----------|----------------|-----------------------|
| SYSTEM  | CODE TYPE           | SEVERITY | FIX DIFFICULTY | AREA                  |
| Network | Generic (all makes) | Medium   | Intermediate   | Network communication |

#### Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) on the dashboard
- Often no symptoms besides the warning light, especially if the fault is intermittent
- Intermittent no-start or stalling if the affected module loses power
- Multiple unrelated trouble codes stored in various modules due to voltage fluctuations
- Erratic operation of systems controlled by the affected module, such as lighting or body functions
- Battery drain if the circuit has a short to ground

#### Common causes, most likely first

- 1 Corroded or loose battery terminals and cable connections
- 2 Faulty or weak battery with low state of charge
- 3 Damaged wiring or connectors in the module's power circuit (open, high resistance, or short)
- 4 Blown fuse or faulty fuse box connection for the module's power feed
- 5 Failed control module (internal power supply fault)
- 6 Poor ground connection for the module or chassis
- 7 Voltage spikes or drops from a failing alternator or starter



## How to diagnose and fix it

- 1 Perform a battery test and check state of charge; recharge or replace if needed
- 2 Inspect and clean battery terminals and ground connections; tighten as required
- 3 Check the fuse and relay for the affected module's power circuit; replace if blown
- 4 Measure voltage drop on the power circuit under load to identify high resistance
- 5 Inspect wiring and connectors for corrosion, chafing, or loose pins; repair as needed
- 6 Clear codes and test-drive to see if the code returns; if it does, perform pinpoint tests per service information
- 7 If all external circuits test good, substitute a known-good module or reprogram/replace the module as last resort

## Don't overlook the simple power supply

- A weak battery or poor connection often sets U3500 without any noticeable drivability issue, so always start with a voltage drop test.
- This code can be set by a momentary voltage dip during engine cranking, which is why checking battery health and starter draw is crucial.
- U3500 is sometimes misdiagnosed as a module failure when the real problem is a corroded ground or a chafed wire in the harness.
- Multiple modules may store U3500 simultaneously if the fault is in a shared power feed, such as a main fuse box connection.
- After repairing the circuit, the code may require several drive cycles to clear from history, so don't assume the fix failed if it reappears immediately.

## Can I keep driving with U3500?

If the vehicle starts and runs normally, you can drive it to a repair shop, but avoid long trips and heavy electrical loads. If the engine stalls or multiple warning lights appear, stop driving and have the vehicle towed to prevent safety risks.

## Tools that help

- Digital multimeter (DMM)
- Battery load tester
- Fuse puller
- Wiring diagram and service information
- Scan tool with bidirectional capabilities



## Reading U3500

- U** Network: communication between the vehicle's control modules.
- 3** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 5** Network communication.
- 00** The exact fault within that area.

## Often seen with

**P0562** System Voltage Low · **P0563** System Voltage High · **U3000** Control Module · **U3001** Control Module  
Improper Shutdown Performance · **U3003** Battery Voltage

## See it working

Watch the animated explainer [How Misfire Detection Works: Crankshaft Speed](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u3500/>

