

GENERIC · NETWORK

U3550

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U3550

Hydrogen Tank A Valve Control Circuit

U3550 is a generic network code indicating that the hydrogen tank A valve control circuit has a fault, typically an open, short, or out-of-range condition detected by the control module responsible for the hydrogen storage system. The computer monitors the electrical circuit that commands the tank valve and sets this code when the expected voltage or current is not present during a commanded test.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Network	Generic (all makes)	High	Professional	Network communication

Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) on the dashboard
- Often no symptoms besides the warning light if the fault is intermittent or only affects a redundant circuit
- Inability to refuel the hydrogen tank or slow refueling if the valve fails to open
- Rough running or loss of power if the valve fails to supply hydrogen to the fuel cell or engine
- Audible clicking or no sound from the tank valve area when the ignition is turned on
- Other warning messages related to the hydrogen system or reduced power mode

Common causes, most likely first

- 1 Faulty hydrogen tank A valve solenoid or its internal coil
- 2 Damaged, corroded, or disconnected wiring or connector at the valve
- 3 Blown fuse or faulty relay supplying power to the valve control circuit
- 4 Failed control module driver for the valve circuit
- 5 High resistance or open circuit in the ground path for the valve
- 6 Water intrusion or contamination in the connector causing intermittent faults
- 7 Aftermarket accessories or improper previous repairs disturbing the circuit

How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related technical service bulletins (TSBs) for the vehicle
- 2 Inspect the hydrogen tank A valve connector and wiring for damage, corrosion, or loose pins
- 3 Check the fuse and relay that supply power to the valve control circuit
- 4 Measure resistance of the valve solenoid and compare to specification
- 5 Test the control circuit for voltage and ground signals during a commanded activation with a scan tool
- 6 If the circuit tests good, suspect the control module and perform pinpoint diagnostics before replacement
- 7 After repair, clear the code and perform a road test or system verification to confirm the fix

Hydrogen valve circuit faults often misdiagnosed

- A loose or corroded connector at the tank valve is a frequent cause that is often overlooked because the valve itself is replaced unnecessarily.
- The code can set intermittently due to vibration or temperature changes, so a wiggle test of the harness while monitoring live data is valuable.
- Some vehicles use a smart valve with integrated electronics; a failed internal driver can mimic a wiring fault and requires module replacement.
- The hydrogen tank valve circuit may be interlocked with other safety systems, so unrelated codes in the hydrogen system can prevent proper testing.
- Always verify that the 12-volt supply to the control module is stable; low voltage can cause false valve circuit codes.

Can I keep driving with U3550?

If the warning light is on and the vehicle drives normally, you may drive to a service center, but avoid refueling until the fault is repaired because the tank valve may not open or close properly. If the vehicle enters a reduced power mode or shows other hydrogen system warnings, stop driving and have it towed to avoid safety risks.

Tools that help

- OBD-II scan tool with manufacturer-specific software
- Digital multimeter
- Wiring diagram for the hydrogen system
- Test light or logic probe
- Socket set and trim removal tools

Reading U3550

- 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.
- 50** The exact fault within that area.

Often seen with

P0A0F Engine Failed to Start · **P0A1A** Generator Control Module · **U0100** Lost Communication With ECM/PCM A · **U3551** Hydrogen Tank A Valve Enable Circuit · **U3552** Hydrogen Tank A Valve Performance



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/u3550/>

