

GENERIC · NETWORK

U0634

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0634

Lost Communication With Hybrid/EV Battery Pack Coolant Temperature Sensor A

U0634 is a network communication code indicating that a control module on the vehicle's Controller Area Network (CAN) bus has lost contact with the hybrid or electric vehicle battery pack coolant temperature sensor A. The module that sets this code expects regular temperature data from that sensor, and when the messages stop arriving within the required time window, it logs U0634 and typically illuminates the warning light.

SYSTEM

Network

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Network communication

Symptoms you may notice

- Illumination of the check engine light or a hybrid system warning light on the dashboard
- Often no symptoms besides the warning light, especially if the fault is intermittent
- Reduced hybrid system performance or a forced limp mode in some vehicles
- Inaccurate or missing battery temperature information on a scan tool data stream
- Possible cooling fan running continuously or not at all due to lost temperature feedback
- In rare cases, the vehicle may refuse to start or engage the high-voltage battery

Common causes, most likely first

- 1 Damaged or corroded wiring harness between the coolant temperature sensor and the module that monitors it
- 2 Faulty hybrid/EV battery pack coolant temperature sensor A itself
- 3 Loose, backed-out, or corroded connector pins at the sensor or at the control module
- 4 Open or shorted circuit in the sensor signal or return wire
- 5 Failed control module that is not transmitting or receiving CAN messages correctly
- 6 Low 12-volt battery voltage or poor grounds causing network communication dropouts
- 7 Aftermarket accessories or improper repairs that disturbed the CAN bus wiring



How to diagnose and fix it

- 1 Connect a scan tool and verify U0634 is current or history, then check for related communication codes in all modules
- 2 Inspect the coolant temperature sensor connector and the module connector for corrosion, loose pins, or water intrusion
- 3 Perform a visual inspection of the wiring harness along its routing for chafing, pinches, or heat damage
- 4 Measure sensor resistance and compare to the manufacturer's temperature-resistance chart, then check reference voltage and ground at the sensor connector
- 5 Test the CAN bus communication lines for opens, shorts, or excessive resistance between the sensor module and the receiving module
- 6 Substitute a known-good sensor or simulate the signal with a resistor box to confirm the sensor is the fault
- 7 If wiring and sensor test good, diagnose the control module power, ground, and CAN transceiver, and repair or replace as needed

What most technicians overlook on U0634

- A weak or failing 12-volt battery often causes intermittent U0634 because network modules drop offline during cranking or low-voltage events, so load-test the battery before condemning any sensor.
- The coolant temperature sensor on a hybrid battery pack is sometimes part of a larger sensor assembly or harness that also carries other signals, and a single chafed wire can set multiple communication codes.
- U0634 can be stored by a module that is not the one physically connected to the sensor, so always check which module reported the code before tracing wires.
- Aftermarket alarms, remote starters, or poorly installed accessories tapped into the CAN bus are a frequent hidden cause of lost communication codes like this one.
- A sensor that reads plausibly on a scan tool can still set U0634 if its messages are delayed or corrupted, so look at live data timing and not just the temperature value.

Can I keep driving with U0634?

You can usually drive the vehicle short distances to a repair shop, but avoid long trips or heavy loads because the hybrid system may not manage battery cooling correctly. If the vehicle enters limp mode or shows a high-voltage warning, stop driving and have it towed.

Tools that help

- OBD-II scan tool with live data and CAN bus capability
- Digital multimeter with resistance and voltage measurement
- Wiring diagram and connector pinout for the specific vehicle
- Back probe pins or breakout box for connector testing
- Resistor substitution box for sensor signal simulation



Reading U0634

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

Often seen with

P0A93 Inverter A Cooling System Performance · **U0100** Lost Communication With ECM/PCM A · **U0140** Lost Communication With Instrument Panel Cluster · **U0633** Lost Communication With Fan 2 · **U0635** Lost Communication With Hybrid/EV Battery Pack Coolant Temperature

See it working

Watch the animated explainer [Engine Cooling System Trainer: How Engines Stay Cool](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u0634/>

