



U01BC

Lost Communication With Charge Air Cooler Coolant Pump B

U01BC is a generic communication fault indicating that a control module on the vehicle's network has lost contact with the charge air cooler (CAC) coolant pump B, which is the electric pump that circulates coolant through the air-to-liquid intercooler circuit. The module that monitors this pump—typically the engine control module (ECM) or a dedicated pump controller—has stopped receiving expected status messages or electrical feedback from the pump over the controller area network (CAN) or a dedicated serial link.

SYSTEM Network	CODE TYPE Generic (all makes)	SEVERITY Medium	FIX DIFFICULTY Intermediate	AREA Lost communication with a control module
-------------------	----------------------------------	--------------------	--------------------------------	--

Symptoms you may notice

- Illumination of the check engine light or a specific service warning for the charge air cooler system
- Reduced engine power or a limp-home mode triggered by the ECM when intake air temperature rises
- Poor acceleration or sluggish throttle response, especially during sustained boost or towing
- A noticeable drop in fuel economy as the ECM richens the mixture to protect the engine
- Often no symptoms besides the warning light, particularly if the pump only fails intermittently
- In rare cases, elevated intake air temperature readings visible on a scan tool live data stream

Common causes, most likely first

- 1 Failed charge air cooler coolant pump B, typically due to a seized motor, worn brushes, or a failed internal control circuit
- 2 Blown fuse or tripped relay in the pump's dedicated power circuit
- 3 Damaged, corroded, or disconnected electrical connector at the pump or along the harness
- 4 Open or shorted wire in the pump's power, ground, or communication circuit
- 5 Low coolant level or air lock in the charge air cooler circuit causing the pump to overheat and shut down
- 6 Failed pump control module or a software fault in the module that communicates with the pump
- 7 Corrosion or water intrusion in the pump connector, common on vehicles driven in wet or salty conditions



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, then verify the U01BC is current and not a history code from a previous repair
- 2 Check the pump's fuse and relay, and confirm battery voltage and ground at the pump connector with the key on
- 3 Inspect the pump connector and harness for corrosion, chafing, or loose pins, and perform a wiggle test while watching live data
- 4 Command the pump on with a scan tool and listen for operation; measure current draw with a clamp meter to confirm the motor is not seized
- 5 Check coolant level and bleed the charge air cooler circuit according to the manufacturer's procedure to rule out air locks
- 6 If electrical checks pass but the pump does not respond, substitute a known-good pump or perform a resistance check on the pump motor
- 7 After repair, clear codes and verify communication with the pump is restored and no new codes return during a road test

What a U01BC really tells you

- A U01BC does not always mean the pump itself has failed; a low coolant level or air lock can cause the pump to overheat and shut down, setting a communication code without any electrical fault.
- On many vehicles the charge air cooler pump only runs under boost or when intake air temperature exceeds a threshold, so a failed pump may not set the code until the engine is driven hard.
- Technicians often replace the pump only to find the real fault is a corroded connector or a chafed wire behind the intercooler, so always inspect the harness before condemning the pump.
- A weak or failing battery or charging system can cause multiple U-codes, including U01BC, because low voltage disrupts CAN communication; check system voltage before chasing the pump.
- The code can be set by a fault in the pump's control module or its software, and a reflash or module replacement may be required even when the pump and wiring test good.

Can I keep driving with U01BC?

You can usually drive the vehicle short distances at light throttle to a repair shop, but avoid heavy acceleration, towing, or sustained high-load driving because a failed charge air cooler pump can cause intake air temperatures to spike and the ECM to derate power. If the engine enters limp mode or you notice a significant loss of power, stop and have the vehicle towed.



Tools that help

- OBD-II scan tool with bidirectional control and live data capability
- Digital multimeter
- Clamp meter for current draw testing
- Basic hand tools and socket set
- Wiring diagram for the charge air cooler pump circuit
- Coolant refractometer or hydrometer

Reading U01BC

U	Network: communication between the vehicle's control modules.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
1	Lost communication with a control module.
BC	The exact fault within that area.

Often seen with

P023A Charge Air Cooler Coolant Pump A Control Circuit/Open · **P023B** Charge Air Cooler Coolant Pump A Control Circuit Low · **P023C** Charge Air Cooler Coolant Pump A Control Circuit High · **P023D** Manifold Absolute Pressure - Turbocharger/Supercharger Boost · **U0100** Lost Communication With ECM/PCM A

See it working

Watch the animated explainer [Turbocharger Trainer: Boost, Wastegate and Intercooler](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u01bc/>

