

GENERIC · NETWORK

U063B

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U063B

Lost Communication With Coolant Bypass Valve Actuator A

U063B is a generic network communication code indicating that a control module has lost the CAN (Controller Area Network) data stream from the coolant bypass valve actuator, designated 'A'. The module monitoring the network, typically the engine control module, sets this code when expected messages from that actuator stop arriving within the required time window, which points to a communication fault rather than a mechanical cooling system failure.

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

Symptoms you may notice

- Illumination of the check engine light or service vehicle soon message on the dashboard
- Often no symptoms besides the warning light, with the engine running and cooling normally
- Coolant temperature that rises more slowly than usual or stays below normal operating range in cold weather
- Reduced heater output or inconsistent cabin heat because the bypass valve may default to a fixed position
- A stored communication code in multiple modules if the actuator shares a network segment with other devices
- Intermittent warning light that appears and clears as network communication re-establishes

Common causes, most likely first

- 1 Damaged, chafed, or corroded wiring in the actuator's power, ground, or CAN bus circuit
- 2 Loose or contaminated connector pins at the coolant bypass valve actuator or the module it communicates with
- 3 Failed coolant bypass valve actuator electronics, including internal circuit board faults or a seized motor
- 4 Blown fuse or poor ground connection supplying the actuator's communication and power circuits
- 5 CAN bus network fault such as a shorted or open data line affecting the actuator's ability to transmit
- 6 Low system voltage or a weak battery causing modules to drop off the network intermittently
- 7 Aftermarket electrical accessories or improper prior repairs introducing interference on the network



How to diagnose and fix it

- 1 Connect a scan tool and record all stored codes in every module to confirm U063B is current and identify related network faults
- 2 Inspect the actuator connector and harness for corrosion, loose pins, chafing, or signs of coolant contamination
- 3 Check the fuse and ground circuits serving the coolant bypass valve actuator with a multimeter before condemning any part
- 4 Measure CAN bus voltage and resistance at the actuator connector to verify the data lines are intact and not shorted
- 5 Perform a bidirectional actuator test or command the bypass valve through the scan tool to see whether it responds and reports position
- 6 Substitute a known-good actuator only after wiring and voltage checks pass, then clear codes and verify communication returns
- 7 Road test the vehicle through a complete warm-up cycle and recheck for pending or stored U063B codes

Why this code is often a wiring fault

- Technicians frequently replace the coolant bypass valve actuator only to find the real fault is a corroded connector pin or a chafed wire behind the engine, so always load-test the circuit first.
- U063B can be set by a low or failing battery because modules that briefly lose voltage drop off the CAN network and trigger communication codes that look like hard part failures.
- The actuator may still physically move when commanded directly even though it cannot communicate, which means the fault lies in its network interface or wiring rather than the valve mechanism.
- A coolant leak or seepage from a nearby hose can wick into the actuator connector and cause intermittent communication loss that only appears after the engine reaches operating temperature.
- This code does not confirm the bypass valve is stuck open or closed; it only reports lost messages, so cooling system performance must be evaluated separately before replacing mechanical parts.

Can I keep driving with U063B?

The vehicle is generally safe to drive because the cooling system defaults to a fail-safe position, but avoid long trips, heavy towing, or extreme temperatures until the communication fault is repaired. If the temperature gauge climbs above normal or the heater stops working entirely, stop driving and have the circuit inspected promptly.



Tools that help

- OBD-II scan tool with bidirectional control and live data capability
- Digital multimeter with min/max recording
- Automotive test light or load probe
- Wiring diagram and connector pinout for the coolant bypass valve actuator circuit
- Contact cleaner and dielectric grease for connector servicing
- Basic hand tools for harness and connector access

Reading U063B

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.

3B The exact fault within that area.

Often seen with

P2681 Engine Coolant Bypass Valve A Control Circuit / Open · **P2682** Engine Coolant Bypass Valve A Control Circuit Low · **U0100** Lost Communication With ECM/PCM A · **U063A** Lost Communication With Hybrid/EV Electronics Coolant Temper · **U063C** Lost Communication With Coolant Bypass Valve Actuator B

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/u063b/>

