

GENERIC · NETWORK

U0307

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0307

Software Incompatibility with Glow Plug Control Module

U0307 is a network communication code indicating that the engine control module (ECM) has detected a software incompatibility with the glow plug control module (GPCM). The ECM expects a specific software version or calibration from the GPCM, but the module is reporting a different version or is not programmed correctly, so the two cannot communicate reliably for glow plug operation.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Network	Generic (all makes)	Medium	Professional	Software and configuration mismatches

Symptoms you may notice

- Illumination of the check engine light or service vehicle soon message
- Hard cold starting or extended cranking before the engine fires
- Rough idle or white smoke immediately after a cold start
- Glow plug wait-to-start lamp may stay on longer than normal or not illuminate at all
- Often no symptoms besides the warning light, especially in warm weather

Common causes, most likely first

- 1 Glow plug control module has an incorrect or outdated software calibration installed
- 2 Engine control module was reprogrammed or replaced without matching the GPCM software
- 3 Aftermarket or incorrect GPCM installed that does not match the vehicle's original configuration
- 4 Corrupted software in the GPCM due to a failed flash or voltage spike during programming
- 5 Poor electrical connection or damaged wiring at the GPCM connector causing communication errors
- 6 Internal fault in the GPCM preventing it from reporting its software version correctly



How to diagnose and fix it

- 1 Connect a scan tool and retrieve all stored codes from every module, then record the GPCM software part number and calibration ID
- 2 Check for technical service bulletins (TSBs) or manufacturer reprogramming procedures specific to this code and vehicle
- 3 Inspect the GPCM connector and wiring for corrosion, loose pins, or chafed wires, and repair as needed
- 4 Verify battery voltage and ground connections at the GPCM are clean and tight
- 5 Reprogram or flash the GPCM with the latest software using a factory-level scan tool or dealer equipment
- 6 If reprogramming fails or the GPCM will not accept the correct software, replace the GPCM and perform programming and adaptation
- 7 Clear codes and perform a road test including a cold start to confirm the code does not return

Before you replace the glow plug module

- This code is almost always a software mismatch rather than a failed glow plug or module, so flashing the correct calibration often resolves it without any parts replacement.
- A common misdiagnosis is replacing the GPCM before checking for a recent ECM reprogramming or replacement that left the two modules out of sync.
- Low battery voltage during a programming event can corrupt the GPCM software and set U0307, so always confirm a stable power supply before flashing.
- Some vehicles require the GPCM to be configured or adapted after installation, and skipping this step will immediately reset the incompatibility code.
- U0307 can be stored alongside communication codes like U0100 or U0121 if the network has other issues, so address any underlying electrical faults first.

Can I keep driving with U0307?

The vehicle is generally safe to drive, but cold starting may be difficult and glow plug operation could be compromised, leading to rough running and excess smoke when cold. Avoid heavy load or long idling until the fault is repaired, and address it before winter weather arrives.

Tools that help

- Factory-level scan tool with reprogramming capability
- Digital multimeter
- Battery charger or power supply
- Wiring diagram and connector pinout for the GPCM
- Basic hand tools for connector and module access



Reading U0307

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

Often seen with

P0380 Glow Plug/Heater Circuit A Malfunction · **P0670** Glow Plug Module Control Circuit · **U0100** Lost Communication With ECM/PCM A · **U0121** Lost Communication With Anti-Lock Brake System (ABS) Control · **U0300** Internal Control Module Software Incompatibility

See it working

Watch the animated explainer [How a Turbocharger Works, Step by Step](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u0307/>

