



STAR ONLINE PUBLICATION



Case Number: S2514000002 REV. A

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Symptom/Vehicle Issue: P2540 Diagnostic Trouble Code (DTC) and Longer Than Expected, Extended Crank Time After Fuel Level Run Too Low or After Fuel Filter/System Servicing

Models Affected: 2025-2026 RAM 2500 (DJ) 2025-2026 RAM 3500 (D2)
2025-2026 RAM 3500 (DD) 2025-2026 RAM 45/5500 (DP)

Discussion: Some customers may experience an extended crank condition. This concern may have been noticed after the vehicle has been run low/out of fuel, or after a recent fuel system repair such as filter replacement. This may also be noticed newer vehicles arriving from the assembly plant. Upon further investigation, the technician may also find Diagnostic DTC P2540 – Low Pressure Fuel System Sensor Circuit Performance set in the Powertrain Control Module (PCM). The concern may be due to excess air being trapped in the fuel filter housing. If the technician is working on a vehicle with the above condition, please follow the repair procedure below to remove as much air out of the system as possible, helping reduce the extended crank condition.

NOTE: Please reference any applicable Technical Service Bulletins (TSBs)

NOTE: The following repair procedure should significantly improve the condition but may not eliminate it. It may take up to an additional 4-8 hours of driving to fully purge all the rest of the air out of the fuel system and fully eliminate the concern.

NOTE: When servicing the fuel system, opening the door or pressing the brake may initiate an in-tank fuel pump priming cycle. It is recommended that every time you service the fuel system, disconnect the batteries.

This document does not authorize warranty repairs. This communication documents a record of past experiences. STAR Online does not provide any conclusions about what is wrong with the vehicle. Rather, it captures all previous cases known that appear to be similar or related to the vehicle symptom / condition. You are the expert, and you are responsible for deciding on the appropriate course of action.

Contact STAR Center, or your Technical Assistance Center Via TechConnect, eCONTACT or Service Library entry if no solution is found.



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NOTE: The trouble tree for this DTC should not be performed while the extended crank condition exists.

Repair Procedure:

1. Remove both caps from the fuel filter housing. If replacing the fuel filters, ensure that both new filters are properly installed.
2. Slowly pour clean fuel into each of the filter compartments as much as possible to prevent spillage when reinstalling the caps.
3. Allow 2-5 minutes for the fuel to fill the new filter elements.
4. Reinstall both fuel filter caps and torque to specifications.
5. Turn the ignition to run (do not start the engine), then apply the brake. This should initiate an in-tank fuel pump prime cycle.
6. Turn the ignition off.
7. Repeat steps 5, and 6 three additional times.
8. Start the vehicle and allow it to run for approx. 5 minutes.
9. Clear all DTCs

NOTE: Any slight extended crank time that may remain should improve with continued vehicle operation.

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