

2016 - 2018 Cadillac CTS-V: GM TechLink: Proper 6.2L V8 Charge Air Cooling System Draining



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**GM TechLink
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The 6.2L V8 engine (RPO LT4) available in 2016 - 2018 Camaro ZL1, Corvette Z06 and CTS-V models features an Eaton Roots-type supercharger (Fig. 6) that creates a maximum boost pressure of 9.7 psi. The air entering the supercharger is cooled by an integral intercooler to enhance the effectiveness of the supercharger. The intercooler uses conventional coolant in a system that is separate from the engine cooling system. It includes two charge air coolers/heat exchangers, a water manifold assembly, and a variety of sensors to monitor air temperature and pressure.

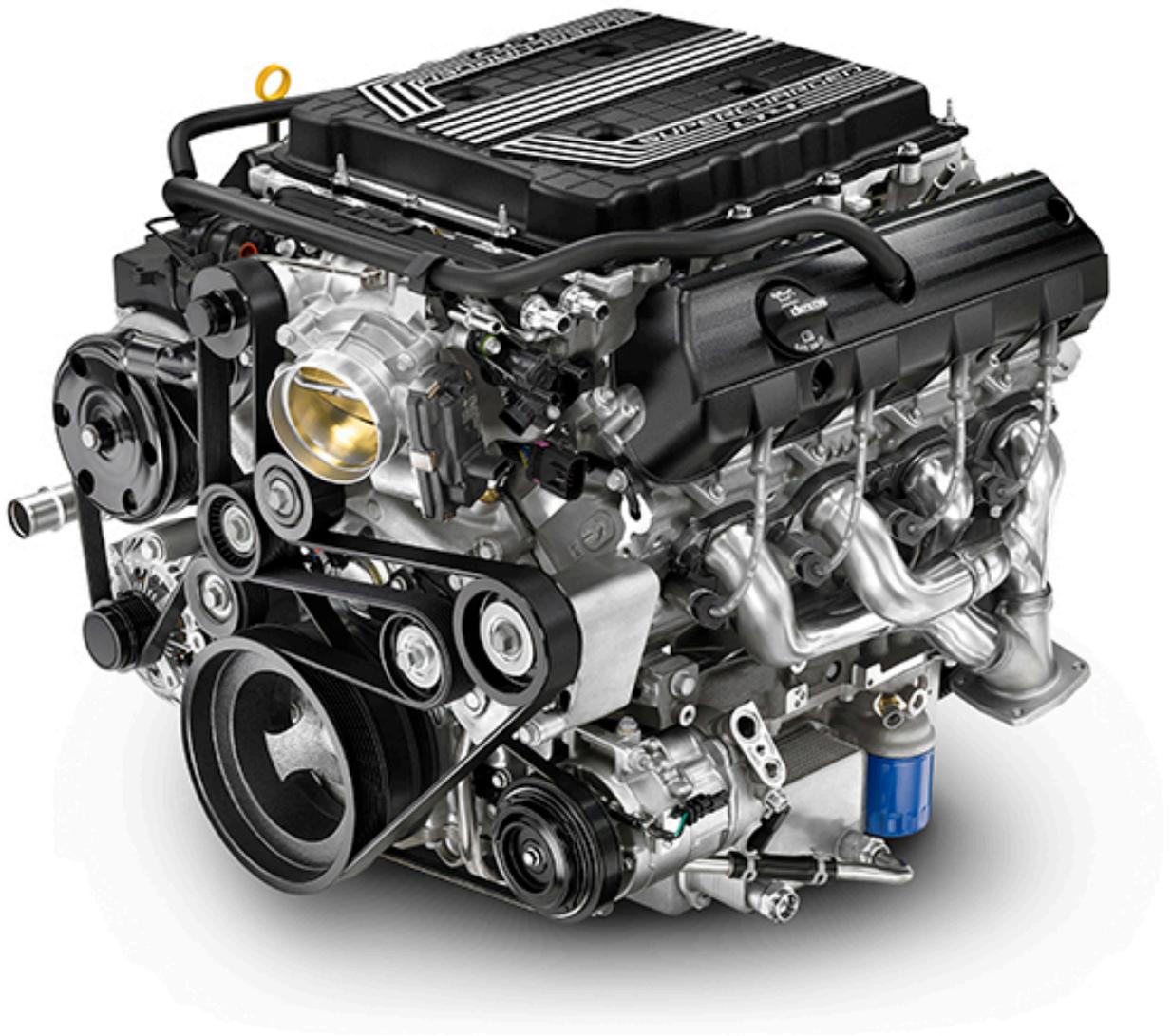


Fig. 6

Drain and Fill after Service

Any time that the supercharger's cooling system is replaced, removed or separated from the engine, it must be properly drained and filled using the following special tools:

- GE-26568 Coolant and Battery Fluid Tester
- GE-47716 Vac-N-Fill Coolant Refill Tool
- GE-47716-30A Vac-N-Fill Green Colored Adapter (Camaro ZL1 and CTS-V)
- GE-47716-20 Vac-N-Fill Cooling System Fill Adapter (Corvette Z06)

TIP: If the supercharger's cooling system is not properly evacuated and filled after service, DTC P0300 (Engine Misfire Detected) may set at high ambient temperatures during track speeds above 100 mph.

Special Tools

On Camaro ZL1 and CTS-V models, the drain plug for the Charge Air Cooler radiator is located behind the radiator lower baffle. Drain the system by opening the two air bleeder valves on the supercharger water manifold.

On Corvette Z06 models, the Charge Air Cooler reservoir drain cock is located behind the right front wheelhouse liner. Loosen, but do not remove, the drain cock to allow coolant to drain.

Be sure to measure and record the amount of coolant drained.

Close the two bleeder valves or the drain cock and tighten to specification. It's critical that the system be completely free of air to prevent Charge Air Cooler pump noise and loss of system performance.

On Camaro ZL1 and CTS-V models, install the GE-47716-30A Vac-N-Fill Green Colored Adapter (Fig. 7, #1) to the Charge Air Cooler quick connect fitting. On Corvette Z06 models, install the GE-47716-20 Cooling System Fill Adapter to the Charge Air Cooler fill port. Next, follow the instructions in the appropriate Service Information to attach the GE-47716 Vac-N-Fill tool to the appropriate adapter.

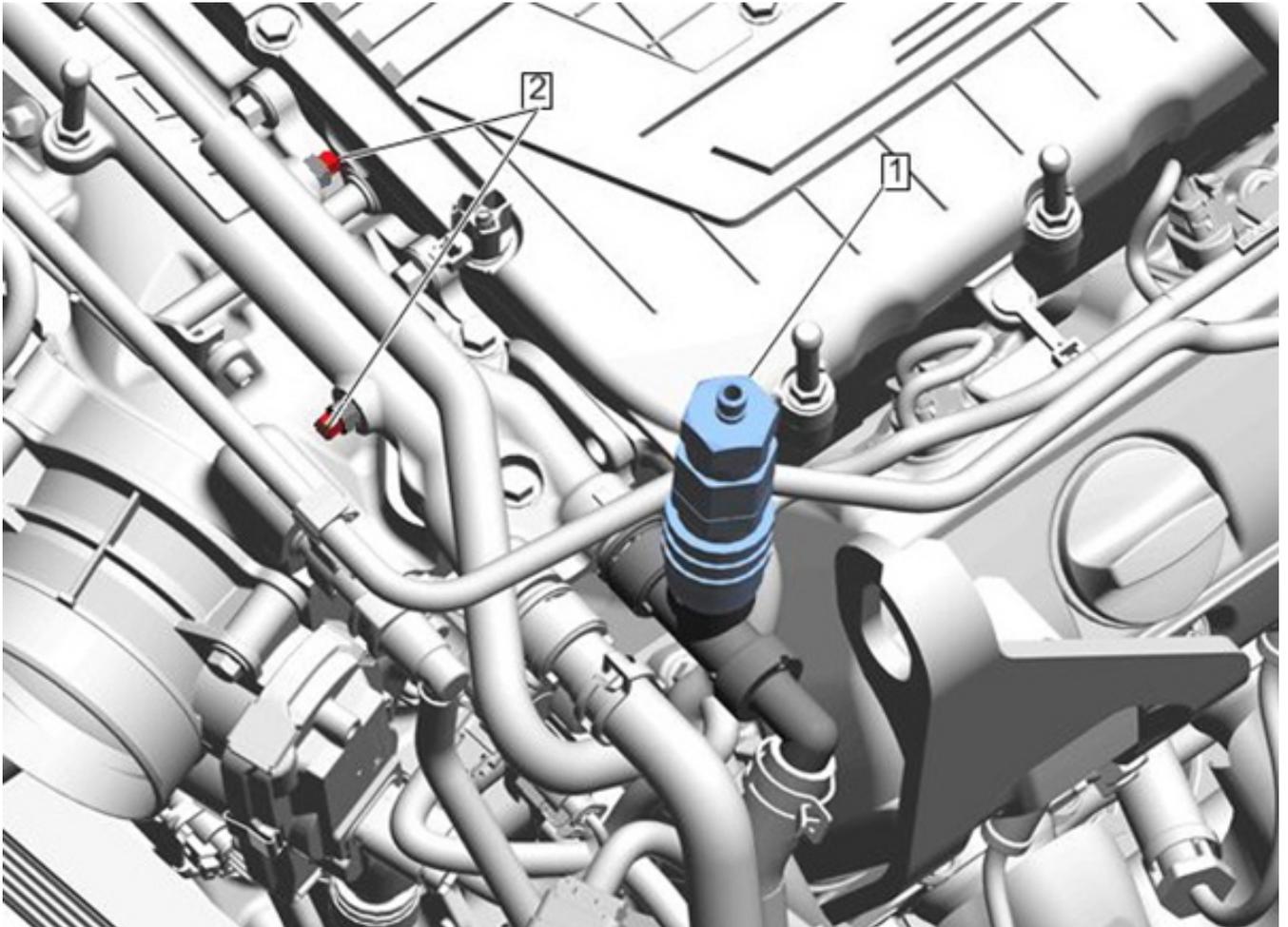


Fig. 7

Use a 50/50 mixture of DEX-COOL coolant and clean, drinkable water. Always use more of the 50/50 mixture than necessary to eliminate air from being drawn into the cooling system.

After filling the system, inspect the coolant level and test the concentration of the coolant mixture using the GE-26568 Coolant and Battery Fluid Tester.

– Thanks to Tracy Lucas

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Online URL:

<https://www.cadillacvnet.com/knowledge-base/article/2016-2018-cadillac-cts-v-gm-techlink-proper-6-2l-v8-charge-air-cooling-system-draining-19.html>

