

# FUEL SYSTEM

## Installation: Fuel Transfer Pump Tips, '89-'98



**'89-'93 12V**  
A3928143



**'94-'98 12V**  
4988747

**Tip 1:** The fuel transfer pump used on '89-'98 12-valve engines has an arm that moves as a lobe on the camshaft rotates round-and-round. You'll want to install the transfer pump when the cam lobe is away from the pump's arm. You can be sure the cam is not acting on the arm by rotating the engine to where the crankshaft alignment marks line up at Top Dead Center (TDC).

**Tip 2:** How do you rotate the engine to TDC? While you could purchase the Cummins Engine Barring Tool (3824591), the tool is not necessary. You can turn the engine over using a 22mm socket that you put onto the 22mm nut on the alternator.

Turn the socket/ratchet in the counter-clockwise direction and you'll find the serpentine belt provides enough grip to turn the engine over. Granted, you are going in reverse of the engine's normal engine rotation, but it does not matter as all you are trying to do is get the engine to TDC.

**Tip 3:** The factory service manual would have you underneath the truck removing the starter to gain access to the transfer pump. Our approach is to come in from the top. *See more on the next page.*

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If you need more assistance, we are only a phone call away.

**(770) 886-2500**

Monday-Friday  
8:30am-5:30pm EST

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**Tip 3 continued:**

The problem with this approach: when you try to reinstall your fuel pump and fuel heater unit you cannot push the pump back into place because your arms are not long enough to get any leverage to push the plunger against the camshaft. This is the voice of experience speaking. (And about an hour of labor and an evening in the easy-chair thinking about the problem.) There is a simple solution, thus making removal from the top a practical service technique.



Here is the secret: When you remove the fuel lift pump, install the longer mounting studs that we are sending to you in this kit. These studs allow you to slip the new pump, heater and gaskets easily into place. Tighten the nuts to 18 ft. lbs. of torque.

Next step, bleed air from the fuel system. Begin by loosening either (doesn't matter which) of the two 10mm bolts on top of the fuel filter housing ('94-'98 models). This will allow the air to escape as you prime the system. In order to prime the fuel system, begin by pushing the primer button a few hundred times. And, when you finally feel like your thumb is about to fall off, then, do it a few hundred more times. Seriously, don't use your finger to push the primer button. Our favorite tool for this job is a jack handle (from one of those cheap automotive two-ton jacks) that has a slot in the center of the open-ended pipe.

*We hope you have found these tips to be helpful.  
We sincerely thank you for your purchase from Geno's Garage.*