



**1328 Fitch Way  
Sacramento, CA 95864  
916.716.8999 voice  
916.359.8058 fax**

## Duramax Fuel Filter Install Instructions

Revised 2012

Thank you for purchasing the Nicktane Duramax Fuel Filter Kit. Please read all the directions thoroughly before beginning the installation process. This kit fits all model years of the Duramax.

### Kit Contents:

- 1 Filter bracket
- 1 Filter head
- 1 Fuel Filter – CAT 1R-0749
- 1 Fuel Line – ½" ID
- 4 Clamp – Hose
- 2 Fitting – Barb
- 1 Fitting – ½" Barb to Quick-Connect 90\*
- 1 Fitting – ½" Barb to Quick-Connect Straight
- 6 Bolt - Stainless Steel
- 4 Lock Nut, 3/8" Stainless Steel
- 10 Washer - Stainless Steel

In addition to regular tools, the following is required. It has been found at Sears:

Lisle AC/Fuel Line Disconnect Tool Set  
Sears Item #00946337000  
Mfr. Model #37000

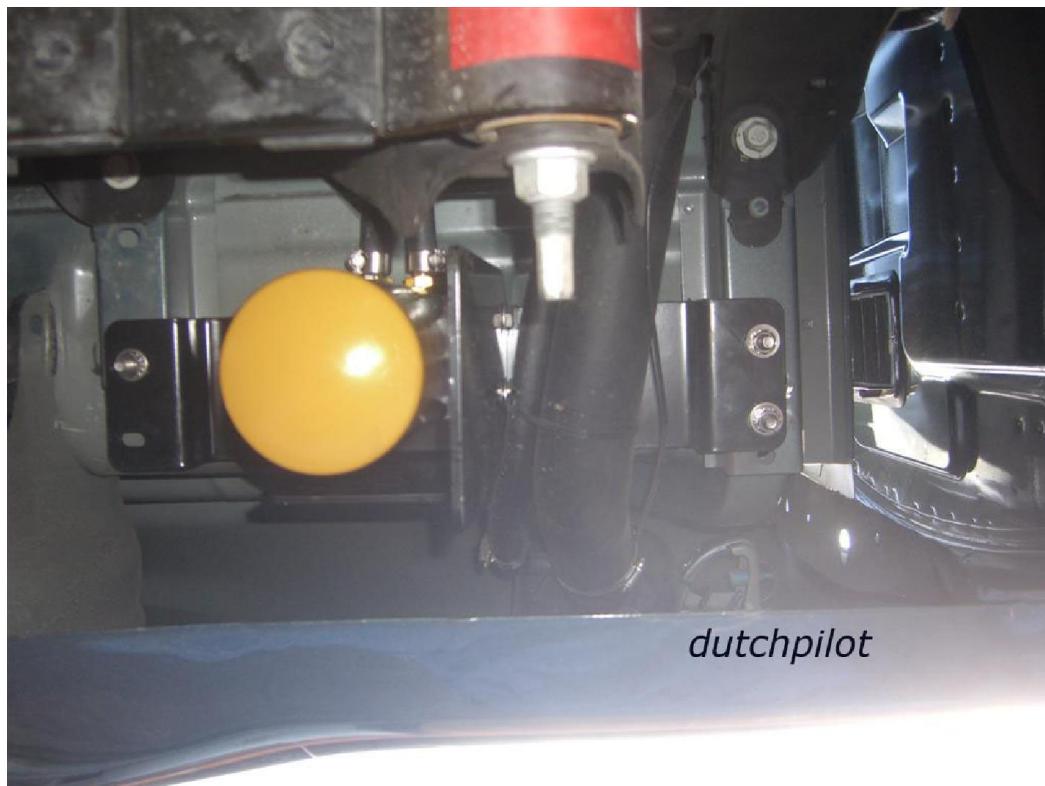


## **1) Mount Filter Bracket to Truck:**

Position the bracket under the truck, inside the driver's-side rear fender well. There is one hole that exists in the under-bed rail. This hole is for the outside-rear bolt. This will be 1 of your 4 bolt holes and will be used to line up the bracket (Be sure to position the bracket evenly between the two bed rails, making sure it is as far to the outside of the truck as possible). Using the first bolt in the OEM hole as a guide to align the bracket, drill the remaining 3 holes through the bracket into the under-bed rails. Attach bracket to truck with 4 bolts and nuts. Tighten securely. Note- If you have a 2007.5+ model year truck, one of the rails is shorter than the other and you will only use 3 of the 4 bolts. In this case the 4<sup>th</sup> hole in the bracket will remain unused.



Note: If you have a 2007.5 or newer truck you will find one of the channels obstructed by a reinforcement bar. To get around this, drill another hole large enough to feed the bolts through as shown. The bracket will cover this hole when bolted into place:



## 2) Disconnect OEM Fuel Line at Top of Fuel Tank:

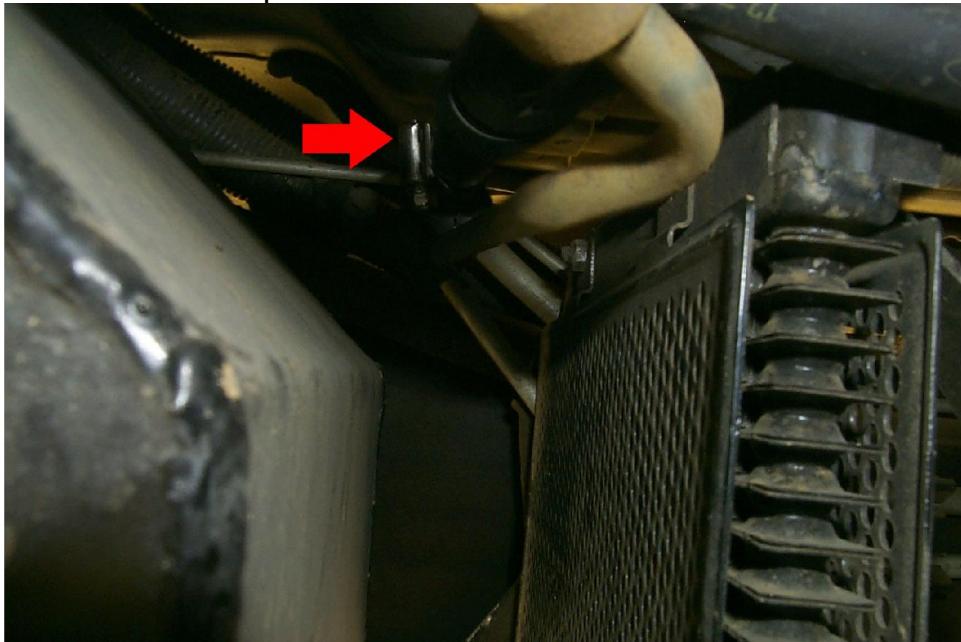
Access to the OEM fuel line will vary depending on truck configuration. For a truck with the GM fuel tank, access is gained by bending outward, notching, or removing the deflector plate on the passenger side of the fuel tank. For a truck with a transfer flow fuel tank, the deflector plate is not present and therefore does not need to be removed. On trucks with an OEM exhaust system, loosening of the exhaust system will provide more room if required. On trucks with aftermarket exhaust and a smaller muffler loosening the exhaust may not be required. Once access to the top of the tank is gained, disconnect the GM Quick-Disconnect fitting for the supply line. On a 2001-2004 LB7 the supply is the larger of the two lines, and will be the one closer to the front-left corner of the truck (see first picture of new line installed below for reference). On an 2004.5 and later LLY/LBZ/LMM, see the second photo below. Also pictured in the 3<sup>rd</sup> photo is the OEM line that will be removed (the left side of the picture is where it connects to the tank; the right side of the picture is where it connects to the hard line just behind the fuel cooler).



(OEM Line to be removed from truck)

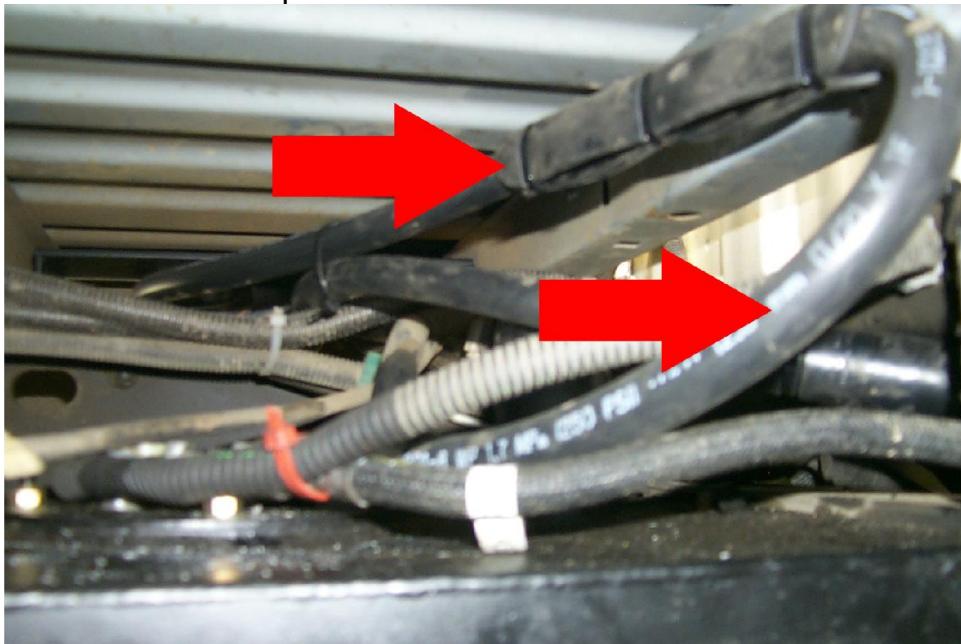
### **3) Disconnect OEM Fuel Line Behind Fuel Cooler:**

Follow the disconnected fuel line from step #2. It will connect to a hard line just behind the fuel cooler. Disconnect the GM Quick-Disconnect fitting and set the line aside. This line will not be re-installed. See the picture below for reference.



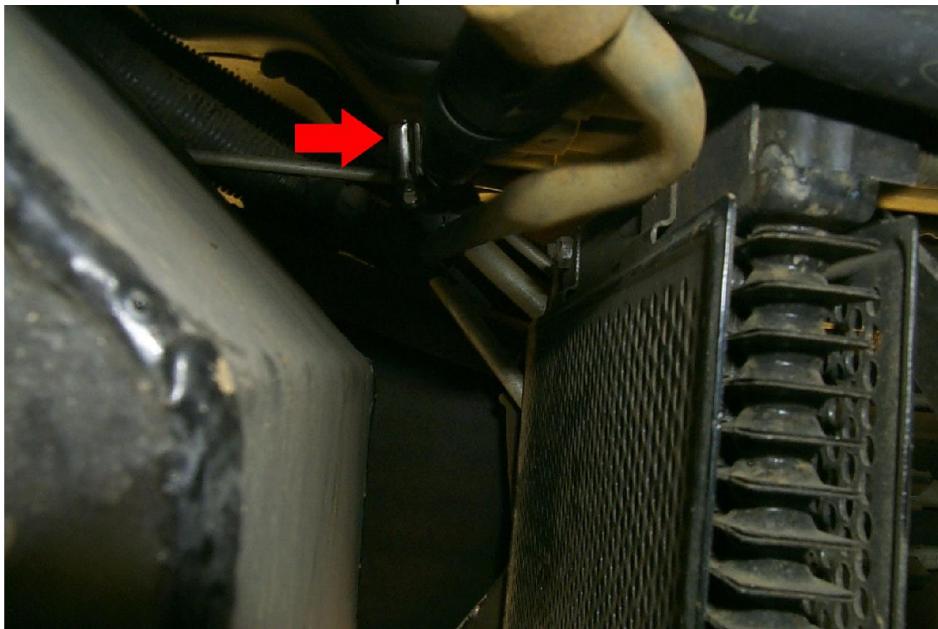
### **4) Install New Fuel Line to Tank:**

Measure the length of line required from the filter head to the top of the tank. Install the Black 90° QD Fitting to one end of the fuel line and secure with a hose clamp. Note- On a LMM+ Truck you MAY have to re-use your original quick-disconnect fitting as some trucks are metric and some are not. As there is no way to tell before hand, try using the supplied QD fitting and if it seems to large (loose) then you have a metric truck. Run the line from the top-center of the filter bracket and attach the QD fitting to the fuel feed line on top of the sender. Mark the fuel line for later identification. See picture below for reference.



## **5) Install New Fuel Line to OEM Line:**

Measure the length of line required from the top of the filter bracket to the OEM line near the fuel cooler. Install the straight (white)  $\frac{1}{2}$ " barb to Quick-Disconnect fitting into one end of the line. Secure with supplied clamp. Run the line from the top of the filter bracket across the tank and along the same path as the previous line removed and attach the Quick-Disconnect fitting to the OEM location. (Make sure the line has some slack in it so it can move if needed). Mark the fuel line for later identification. See picture below reference.



## **6) Connect Fuel Lines to Filter Head:**

Install the  $\frac{1}{2}$ " NPT fittings into the inlet and outlet ports of the filter head. Apply a small amount of pipe dope/thread sealant which will help ensure an air-tight seal (Maximum torque on tapered fittings is 28 ft. lbs). The inlet & outlet are marked on top of the filter head. If you forget which is the inlet/outlet you can shine a flashlight up through the filter nipple and light will be visible in the outlet port. Bolt the filter head to the bracket. Slide a clamp over the line coming from the fuel tank, attach it to the barb fitting on the inlet port of the filter head, and tighten the clamp. Slide a clamp over the line coming from the front of the tank near the fuel cooler, attach it to the barb fitting on the outlet port of the filter head, and tighten the clamp.



## **7) Finish and Bleed the System:**

Lubricate the seal on the filter with light oil and install the CAT filter onto the filter head ensuring the filter is tight. Re-check brass fittings for tightness. Next, start the truck and allow it to idle until it dies. Then bleed the system as you regularly would from the OEM filter bleed screw. The CAT filter does not have a priming pump, and is transparent as far as bleeding is concerned. Simply open the OEM bleed screw, pump your OEM filter's primer many times (~40-50) until you see pure fuel and no bubbles coming out. Then tighten the OEM bleed screw and start the truck (If it starts and dies, you may need to prime the excess air from the system one more time). Run the truck for several minutes to allow the air to pass. I recommend replacing your OEM filter after a couple hundred miles in case traces of dirt were introduced during the installation. Make sure to check your connections periodically for tightness.

Optionally, initial bleeding of the system can be avoided/minimized by pre-filling the filter with diesel prior to installation.

Thank you again for purchasing a Nicktane Fuel Filter Kit!