

Diesel Cal-Cat Installation Manual

Please Read Entire instructions before installation.

****Never put lead based additives in the Fuel tank as this will poison the catalyst.****

This installation should be completed by a competent mechanic familiar with Diesel engines.

All safety procedures and methods must be followed when working with fuel lines and coolant systems. It is recommended that you have a fire extinguisher handy while performing the installation. Wear safety goggles and mechanic's gloves for protection. Make sure that the engine has cooled before beginning installation.

*****The basic premise of the installation is to hook the Cal-Cat unit between the fuel out fitting of the fuel filter and the fuel in fitting of the injector pump. This is the low pressure transfer from the fuel tank to the injector pump. This is the only place where the Cal-Cats can be installed and function to the way they were designed*****

UNDER NO CIRCUMSTANCES INSTALL THE CAL-CAT UNIT AFTER THE INJECTOR PUMP!!!

Begin by finding a place to install the Cal-Cat units. For time and money savings we suggest to have the units placed in our optional bracket. The time you save in installation will probably more than pay for the bracket. The factory bracket comes pre-drilled for ease of mounting. You cannot Drill or Tap into a Cal-Cat but you can drill and tap into the bracket.

Most of these instructions are for those of you who didn't purchase the bracket, however the heater hose and fuel line sections are still applicable.



Optional Bracket

First you should put the Cal-Cats together as in figure 1. You will need some 5/8" heater hose. You should mock this assembly up on a bench, as you must install the appropriate fittings using the enclosed Teflon tape making sure the fittings are tight, cut the heater hose and black fuel tubing, and assemble both the heater hose and fuel tubing simultaneously using the appropriate enclosed clamps and clamp pliers. Always make sure the Cal-Cat is properly grounded after it is installed

Be sure to assemble the grounding wire as in figure 1.



After completing step 1, take the assembly to the vehicle and find a place to mount them that is convenient to the fuel lines and the heater hoses as in figure 2. Temporarily attach the Cal-Cat units so you may begin hooking up the fuel and heater hoses. If mounting them, as in figure 2, be sure to insulate them from the frame by cutting pieces of $\frac{3}{4}$ " heater hose length wise and sliding them over each of the Cal-Cats so the frame will not wear a hole in the units

Figure:2



On our demonstration installation, first you would remove the tube that is connected from the (OUT) of fuel filter housing to the fuel (IN) fitting on the injector pump this is the low pressure side. See figures 3 and 4.

Figure 3 OUT from Fuel Filter.





Figure:4 (IN) to Injector Pump.

Next remove the fitting from the fuel (OUT) of the fuel filter and also the fuel (IN) to the injector pump. See Figure 5 below.



After removing those two fittings and the line between them you will then replace the appropriate enclosed fittings (straight or 90*) in each of the places where you just removed the other fittings. Now measure, cut and attach the enclosed black nylon hose from the fitting that you put in the fuel filter to the inlet fitting of the Cal-Cat assembly using the enclosed hose clamps and clamp pliers.

Next repeat the same procedure from the fitting that you installed in the injector pump to the fuel out fitting of the Cal-Cat assembly.

(BEFORE HOOKING THE BLACK TUBING TO THE INJECTOR PUMP AND THE FUEL FILTER IT WOULD BE WISE TO FILL THE CAL-CATS WITH FUEL TO AVOID ANY AIR LOCKS WHEN STARTING THE ENGINE!)

You have now finished hooking up the fuel lines.

NOTE: (Ideally we prefer to have the direction of the Hot Coolant flowing against the direction of the Cool Fuel it may or may not make a difference in the performance of the Cal-Cat the research is still being done on that but we believe it may help.) Now go to the heater hoses and figure out which would be the hottest one. Generally that will be the one that comes from the water pump and goes to the heater assembly. Figure out the best way to route your heater hose to the Cal-Cat assembly. Once done, cut the hose at the appropriate length and join it using a nylon 5/8" x 5/8" hose coupling and 2 hose clamps (available at most auto parts



stores).

Figure:6

Route the hose to the inlet of the Cal-Cat assembly and attach it with one of the enclosed hose clamps. Using another nylon 5/8" x 5/8" hose coupling and 2 hose clamps attach a hose to the other heater hose left and repeat the last process to the outlet end of the Cal-Cat assembly.

Now top off the coolant in your radiator and finish mounting the Cal-Cat assembly. Start your engine. Bring the engine up to full operating temperature, constantly checking for leaks. Once it has been leak checked after operating at full temperature drive vehicle to make sure everything is normal. The Cal-Cat has a break in period of usually 3-6 driving cycles. Results vary vehicle to vehicle.

For customer service, questions or comments please contact the dealer that you purchase the Diesel Cal-Cat from.