FUEL SYSTEM INSTALL INSTRUCTIONS

The pictures used for these instructions were taken with the turbo removed for better viewing. This fuel system can be installed with the turbo on but it is much easier with the turbo off. This would be a good time to upgrade your turbo to a Dominator 66 to go along with your electric fuel system.

- 1. Disconnect the batteries.
- Remove the factory fuel filter bowl, pump and lines. The easiest way to do this is to remove the banjo bolt from the back of the fuel pump. Then cut all hoses between the pump and the fuel bowl like in the picture and also the return line hose from the side of the fuel bowl. Next undo the return line from the front of the filter bowl, unplug the electrical plug from the IPR (small two wire plug with a metal retainer). Unplug the larger electrical plug from the passenger side of the filter bowl. Remove the 2 bolts from the fuel pump and the 2 bolts from the filter bowl then lift the filter bowl from the valley. Now you can remove the fuel pump but take care not to break the lift tappet or let it drop past the cam shaft. To prevent it from falling past the cam, you can turn the engine over until it lifts the pump slightly on the lobe of the cam. Next remove the hard lines that go to the back of the heads and the passenger side fitting from the head. If your truck is a 97 leave the factor driver side fitting, if a 96 or older remove only the Vibraloc fitting from the 45° fitting in the head, leave the 45.



Cut Blue hoses for removal

Driver side factory fitting on 97



INSTALL

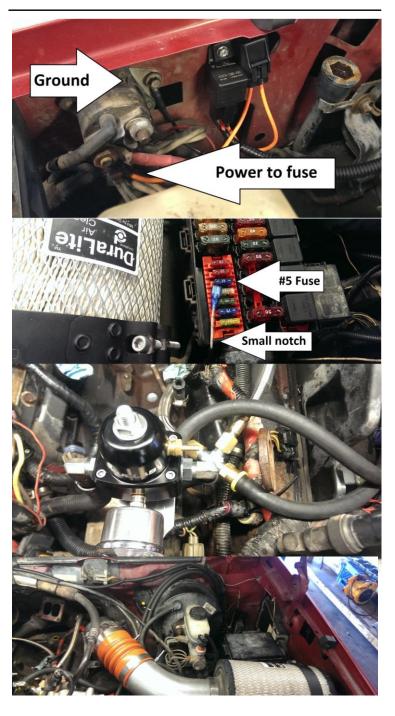
- Drive 7/8" Freeze plug in fuel pump hole. Do not drive too far. Loctite on the plug is also a good idea.
- 2. Install one of the 1/8" pipe thread Street 45° fittings in the passenger side head with it pointing down under the turbo. Use red Loctite or equivalent for sealant, with Loctite the fitting does not have to be super tight to seal once the Loctite sets up. Next install one of the 1/8" pipe thread to



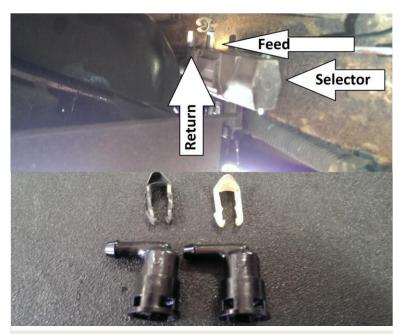
- -6 AN adapter into the 45° also using Loctite. On the driver side the fitting used will depend on year of truck. 97's will use our special made adapter fitting on the stock 90° Vibraloc fitting. Just put a little Loctite on the Vibraloc threads and snug it down. On all 94-96's remove the Vibraloc from the factory 45° and install one of the 1/8" to -6 AN adapters.
- Install the longer stainless braided line on the passenger side routing under the turbo pedestal. The shorter line will go on the driver side and can be router over or under the turbo inlet. Install the –6
 AN tee like seen in the picture.
- 4. Take out the wiring harness and install the relay and fuse on the passenger side next to the starter relay using the supplied sheet metal screw. Ground the black wire under one of the starter relay screws and put the orange fuse wire under the Batt + side of the relay (front lug). Route your harness up around the firewall along the A/C lines, over the brake booster then down to the frame on the driver side. Position the split in the wiring inside the frame but around the back of the engine. Run the white wire back up to the fuse box from there leaving a little slack to tie it into the oil pressure switch later on. Use the supplied fuse tap and install under fuse #5 or any IGN switch fuse and plug the white wire into the fuse tap. Make a small notch in the fuse box so the wire is notch pinched when the lid closes.
- 5. Install the Regulator on top of the high pressure oil pump reservoir using one of the nuts from the factory engine cover. (Engine cover cannot be remounted). Attach the factory –4AN return lines into each side of the regulator. Route one of the supplied fuel hoses around the backside of the brake booster and down to the frame and attach the end with the pre-fitted –6 female fitting to the bottom of the regulator. Tighten the fitting then rotate it to point at the driver side as much as possible and tighten the nut on the 90° fitting in the regulator. Route the other supplied fuel line the same way and attach the –6 female fitting to the –6 tee going to the stainless lines on the engine.
- Remove the two quick connect fittings at the selector valve on the frame next to your forward fuel tank. There is a small plastic lock that must be slid



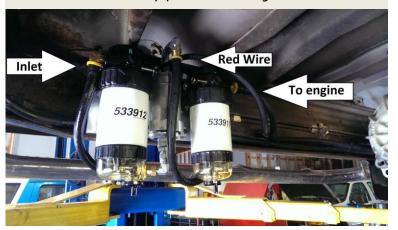
Stainless lines installed with tee fitting



- out then just pull the fitting off the selector valve. Note that the one closer to the frame is the feed from the tanks and will be the one that goes to the inlet of the fuel pump module.
- 7. Mount the pump/filter module to the frame. On longer trucks the module will slip inside the frame just behind the transfer case. On shorter wheel bases you will need to mount the module on the outside of the frame using the supplied flat bracket. If mounting to the outside of the frame note that the inlet and outlet will now be reversed, inlet will be at the front of the module and outlet will be at the back. Route your hoses accordingly. To mount the module find your location then hold module against the fame with the bottom lip under the frame and mark the two mounting holes. Drill two 3/8" or slightly larger holes (watch brake lines and wiring) then mount with the two supplied 3/8 bolts and lock washers. Route the red wire from the wiring harness to the fuel pump and install under the open stud and tighten the nut.
- 8. Route your hoses down the frame to the pump module. Cut the engine feed hose (from the tee in valley) to length and push it onto the outlet of the pump module. Use grease on the pushlock fitting to ease install. Push the hose on until it touches the yellow stop on the fitting. With the excess hose you cut off measure out from the selector valve to the pump module inlet fitting and cut to length. Install the quick disconnect fitting from the selector valve (make sure you use the quick connect from the frame side of the selector valve, the feed and return are different sizes internally) onto the hose and use one of the supplied hose clamps to clamp the hose onto it. Reattach the guick connect at the selector and slide the plastic keeper back into the fitting to retain it on the selector. Push the other end of the hose onto the inlet fitting of the pump module using grease to aid install. Now run your return line from the regulator to the other quick connect fitting at the selector valve using the hose clamp just the same as the feed.



Factory quick connect fittings



- 9. Install the oil pressure safety switch in the side of the block right at the transmission bell housing. Once you have bled your fuel system and set your fuel pressure at the regulator cut the white wire here and crimp on the two supplied female blade connectors and slide them onto the oil pressure switch.
- 10. Reconnect your batteries and turn your IGN switch to RUN. You should hear the fuel pump kick on and will take a few seconds to start pumping fuel. Do a quick check for any leaks at all your fittings. Once both clear fuel bowls on the pump module are full of fuel and no more air is going through adjust your fuel pressure at the regulator. Using a 3/16" allen wrench turn the pressure adjustment screw in on the regulator until the gauge read 60psi. Tighten the jamb nut down.
- 11. Now you can finish the oil pressure safety switch install by cutting the white wire and tie it into the switch. (The oil pressure switch is optional. The switch does two things. It will keep your fuel pump from running all the time with the IGN switch on. It is also a safety measure so in the event of an accident and the engine stops running the fuel pump will stop running as well.)
- 12. If you have any issue or need technical assistance please email service@bdpshop.com or call 615-563-7800.







