

## **Fuel Line Removal & Installation Instructions – 488 Series**

All Fuel Lines should be removed and installed by a certified mechanic. Caution Do NOT use a “light bulb type” trouble light during fuel line removal or installation. Safety glasses should be worn at all times during the removal/installation process. Allow ample time for the engine to cool before proceeding.

Tools needed for removal and installation of fuel lines:

- a. Two quick disconnect tools, one 3/8” and one 5/16”
- b. One straight/flat screw driver
- c. One cutting tool
- d. One basic metric socket set with two twelve inch extensions
- e. Safety glasses

### **Fuel Line Removal Instructions**

1. Depressurize the fuel system by locating the fuel pump fuse in the fuse box. If you do not have a fuel pump fuse, find the relay that operates the fuel pump. Once you’ve located the fuel pump fuse or relay, start your vehicle. With the engine running, pull the fuse or relay out. If you’ve pulled the correct one, the engine will quickly die as it has used all the pressurized fuel in the system. The fuel system is now depressurized and you are ready to start the fuel line removal.
2. Disconnect the feed and return line from the fuel rail on the top left side of the engine (left being the driver’s side). You will need to use the two quick disconnect tools. One for the 3/8" feed line and one for the 5/16" return line described in “a” above. Remove slowly as there will be some residual fuel left in the lines. The vapor line has a built in quick release clip. Follow the vapor line down behind the engine and you will see a white crescent shaped clip. Depress this and remove the plastic vapor line from the steel line.
3. Remove the fuel line routing bracket located just below the fuel vapor line. This bracket is attached to a stud on the transmission bell housing bolt. On most trucks this is a 13mm nut. You will need to use a socket set described in “d” above.
4. Remove two remaining routing clip brackets located further down and back on the drivers’ side of the transmission. This needs to be done by going underneath the vehicle.
5. Using the cutting tool described in “c” above, cut the three flex hoses that attach the front fuel lines to the rear fuel lines. Caution as there will be some residual fuel that will flow out of these hoses.
6. The front set should be ready to remove from the vehicle. Keep the original lines together in their respective routing clips for re-assembly template for new lines.
7. At the front of the fuel tank you will see the Feed, Return, and Vapor line. Depress quick release clips and remove the black nylon jumper lines from the steel fuel lines. If you notice that the quick release clips cannot be depressed, this is a sign the rust has swelled the area between the clip and steel tube, making this task difficult. Try and spray a WD40 or similar product in between the plastic connector and steel line and let soak. Repeat if necessary. If you are not able to unseize the

connector, you may consider using one of our repair kits (3069-01 or 3070-01 depending on your vehicle application).

8. For the rear fuel lines you can either remove the routing clips from the outside of the frame and try and remove them collectively (there is anywhere between 2 to 6 routing clips, depending on the model of truck). These are 13 mm nuts as well and can be removed using the socket described in “d” above. With them removed begin to install new lines in their respective locations.
9. Or, remove the lines individually from the routing clips using the screw driver described in “b” above to pry them from their respective clips. If this method is used it is wise to match up the line removed to the new line and install it so there is no confusion with line location.

### **Fuel Line Installation Instructions**

1. Reverse and repeat steps #3 back through #1 of the “Fuel Line Removal Instructions” for installation of the front fuel lines.
2. Using the two longer flex hoses supplied make the connections from the fuel rail to their respective lines. There is one hose for each and can be matched by comparing the small and large openings at either end.
3. Reverse and repeat steps #8 back through #6 of the “Fuel Line Removal Instructions” for installation of the rear fuel lines.
4. With the new front and rear sections installed use the three smaller flex hoses to connect the front and rear sections. There is one flex hose for the larger feed line connection and this is noted by small notches on each end of the fitting. The return flex hose is stainless steel and has no notches on the fitting. This hose is used to connect the front and rear return lines. The vapor flex hose is a black rubber hose (non-braided) and is used to connect the front and rear vapor lines.