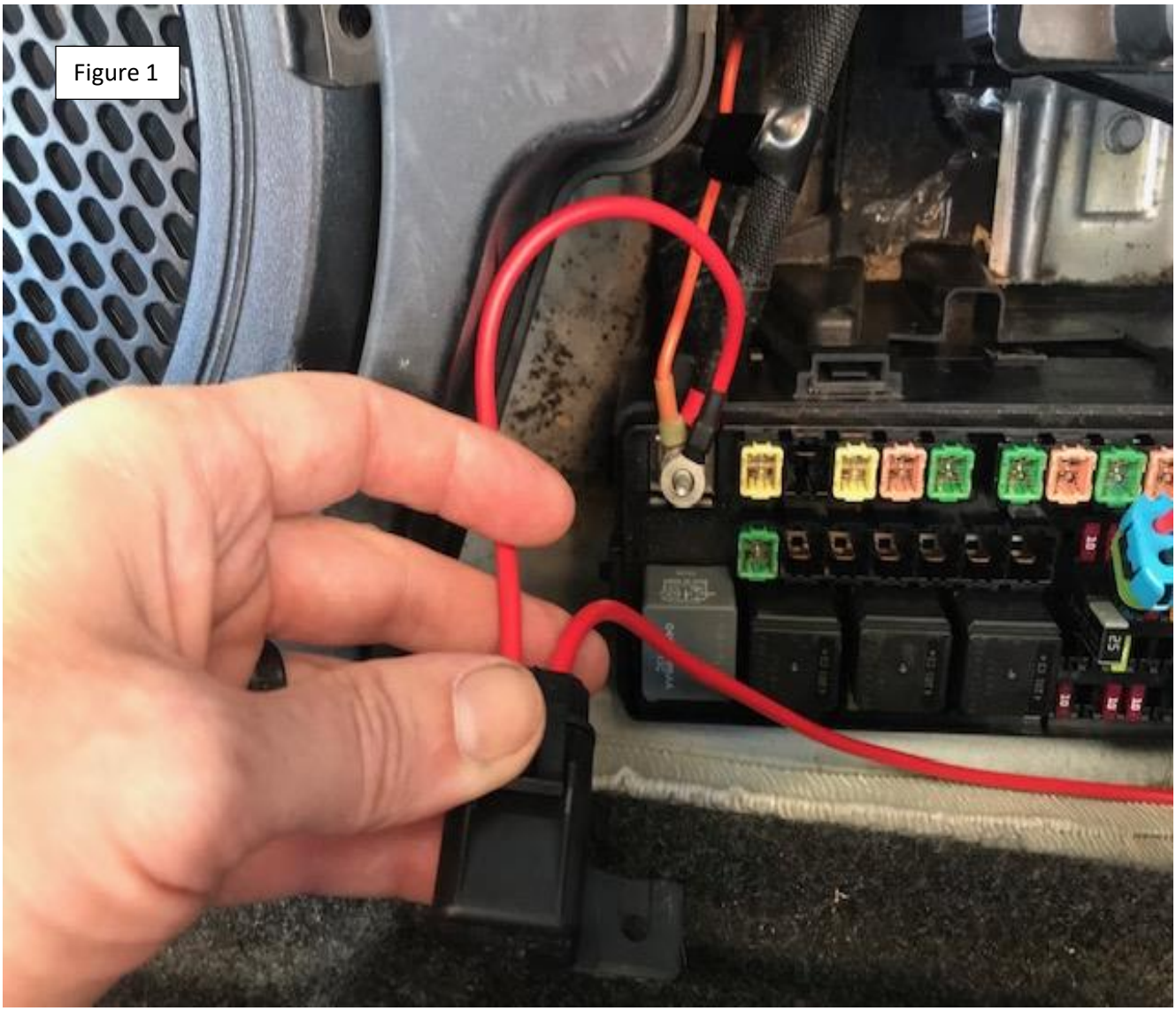
Tapped Performance

Hellcat Double Pump Returnless Fuel System Instructions

Rev. 2A

Congratulations on your purchase of the Hellcat Returnless fuel system featuring FORE double hat which is fully upgradeable for future fueling capacity! Before we get started, it is best to ensure you have just under a half tank of fuel (or less) to avoid fuel spill when removing stock basket assembly if possible. Included in your kit is the hat assembly, Tapped custom "Y"/Fuel pump harness, Mopar FPCM, FORE 88mm Filter, 8an lines and small parts bag. Please carefully read and understand these instructions before starting, if at any time you have a question, do not hesitate to contact us! Contact by either phone at (469) 500-7649 or email through website at www.tappedperformance.com or even Facebook messenger.

1. Pop the trunk! Remove trunk carpet/floor panel, it helps to remove FP Relay and crank engine to relieve most of the fuel pressure and then disconnect battery.
2. Grab the fuse sub-harness and identify the "Main Power" connection as going to fuse assembly, using a 10mm socket, remove the main battery connection at rear PDC and the ground nut to the right side of PDC.
3. Connect Batt + to PDC and tighten nut, run wire around and attach fuse to back wall of vehicle just below panel so you can access by simply lifting floor for easy fuse service, #10 self-tapper provided. (Fig. 1)



(un-loomed for reference)

4. Run fused batt + wire along backwall behind PDC and locate ground loop from "Y"/relay harness connector, attach both ground loops, and tighten the ground nut. (Fig. 2)


Figure 2

5. Route the wires over to passenger side where you can peel back side panel and see the original FPCM (Fig. 3), unplug FPCM and plug in the Tapped Performance "Y" harness using connector that has the opposing end immediately following it (Fig. 4)
6. As Chargers and Challenger are laid out differently, the installer can choose the routing and mounting of Secondary (kit included) FPCM and relay. Usually there is a factory hole to use the included plastic push pin and self-tapper to mount secondary FPCM.
7. At this point you will need to grab the rear seat bottom cushion and firmly pull up to unclip from floor, unplug any connectors if equipped and remove seat bottom from vehicle.
8. Remove plastic cover for stock fuel hat. Unplug factory connector, and remove tape to prepare pulling it from the rubber sealing boot.
9. Grab the Tapped pump 1/2 harness and start routing it under the insulation, under the seat-back which it sometimes helps to tilt forward slightly to gain room for the connector. Going back to trunk area to pull harness through, route just behind seat-back then follow factory battery cable lead securing harness to it if desired.
10. Once happy with routing, plug the pump harness plug respective harness into "Y" harness.
11. Moving back into vehicle, use a suitable tool, remove the retaining lock ring from factory fuel pump assembly, lift up "top hat" and unplug connector to ease rest of removal.
12. Once you have transfer line and main feed line removed, remove the remainder of factory pump/basket.

13. This is where things start getting intense, there is a lot of wires and things can get confusing but follow closely and this will go easy. Let's first pay attention to what is going on inside the tank. Looking at the factory basket, you will need to remove the fuel level sender and attach to the FORE hat unit (Fig. 5). Also notice in (Fig. 5) to slightly modify sending unit for install. Trim wires and crimp on the bullet style connector, which is on FORE hat wiring, some vehicles have two blue, two black, on blue/black, the orientation is not important or the color. Keep in mind that removing the top 4 cap screws from FORE hat to separate the seal plate from the pump makes this a lot easier, just be sure to use a little white grease to keep "O" rings in place.
14. With the internal wiring complete, fuel level sending unit attached, let's drop the assembly into tank. Attach the main fuel feed line, and the jet pump transfer line. Using the supplied long black bolts, put them through the hat and thread into the pump assembly while checking that no "O" rings have moved or out of position. Carefully push top hat down to tank while pulling up on the long black install bolts, once close install two of the original cap screws and snug by hand, now remove the long install bolts and replace with the other two original cap screws and snug all these up. Using your suitable tool, reinstall the hat lock ring. Double check feed/return plugs for tightness at this time, or fittings if using return setup.

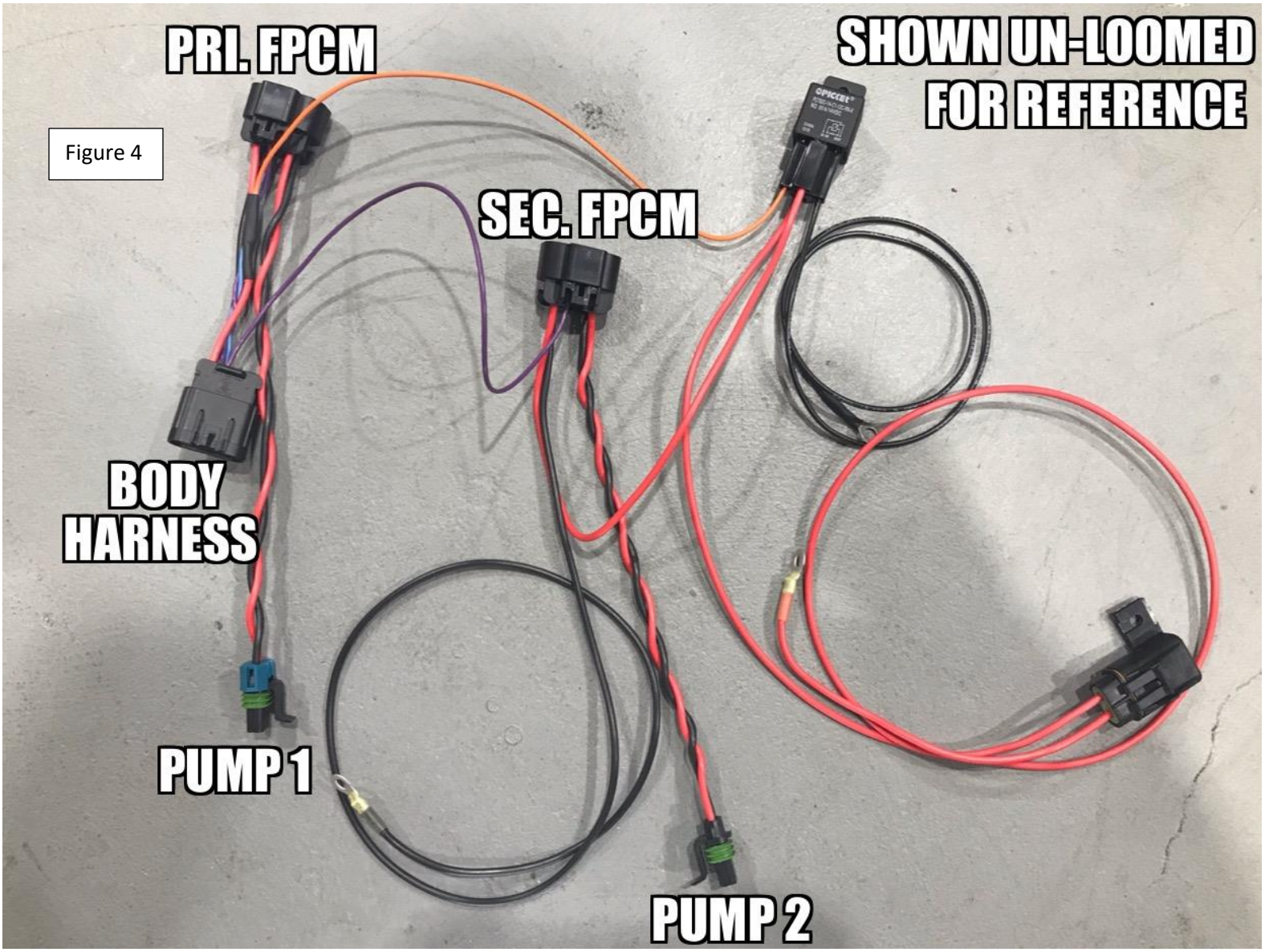


Figure 4 showing to "PRI. FPCM" as the vehicles original FPCM and "BODY HARNESS" is the vehicle original wiring harness plug in locations. Note both black wires pictures are labeled as "Ground". (un-loomed for reference)

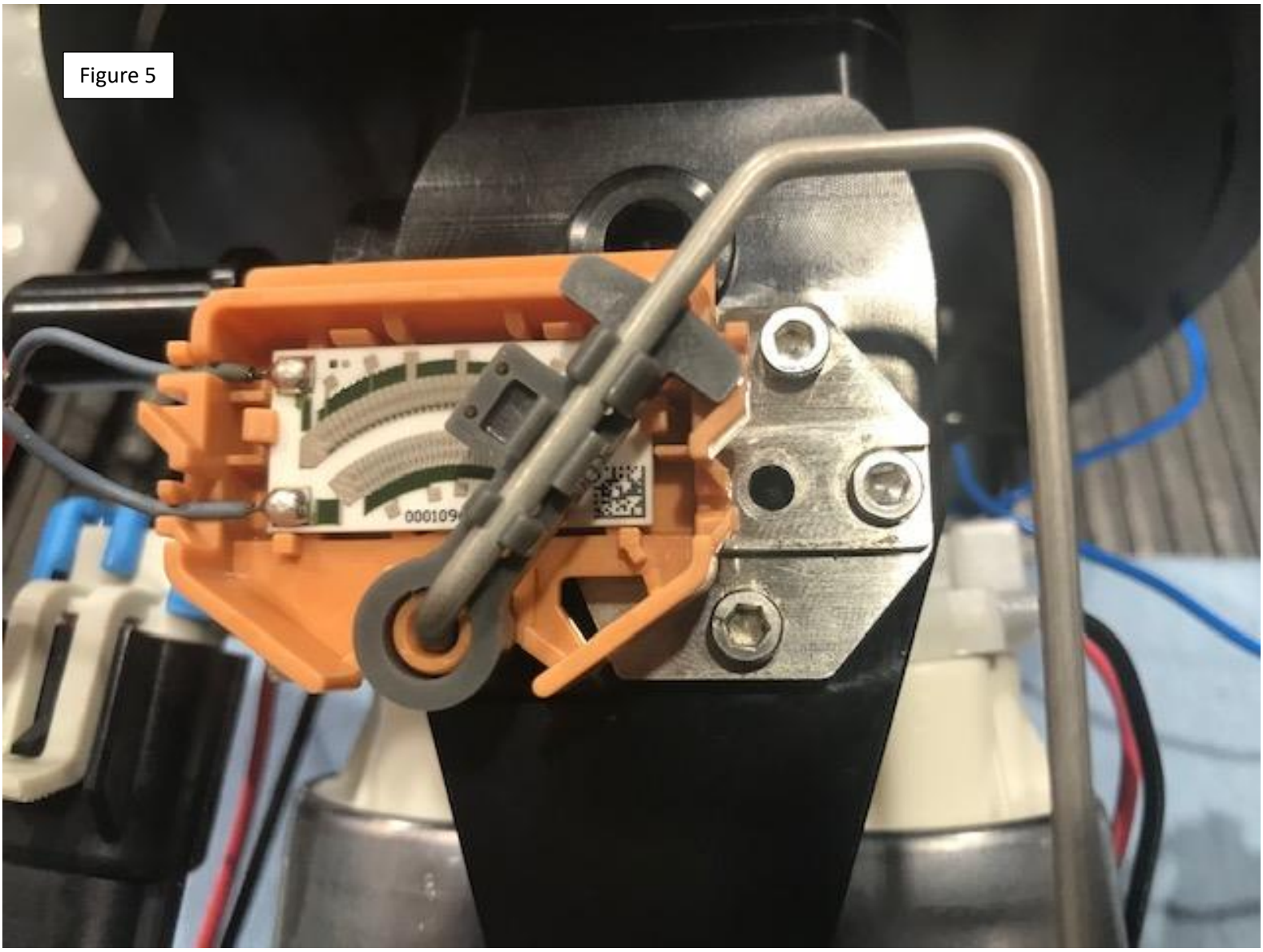


Figure 5 showing Fuel level unit mounted, note to slightly trim plastic to gain easy access to the 4th cap screw.

Let's move on the fun stuff under the car…

15. **Raise vehicle with suitable jack/jackstands or hoist and remove the plastic guard from the passenger side of vehicle protecting fuel tank.**
16. **Locate the FORE filter and 8AN braided nylon fuel lines, the filter should have the 90's loosely installed, orient the filter so the (outlet) flow is going towards your left and attach the 8" long line with fitting going up. (Fig. 6) It should also be noted we check filter, and filter assembly comes loose from FORE, so housing itself is NOT tight at service end.**

Figure 6 showing fitting and filter setup, note that the 1/8 NPT plug is used in the center of the billet bracket to keep filter from rotating, do not over tighten!

17. **Locate the included FORE adapters for the stock ½" fuel lines and using the female adapter tighten it into the other 90 fitting on the 8" 8AN line. (Fig. 7)**

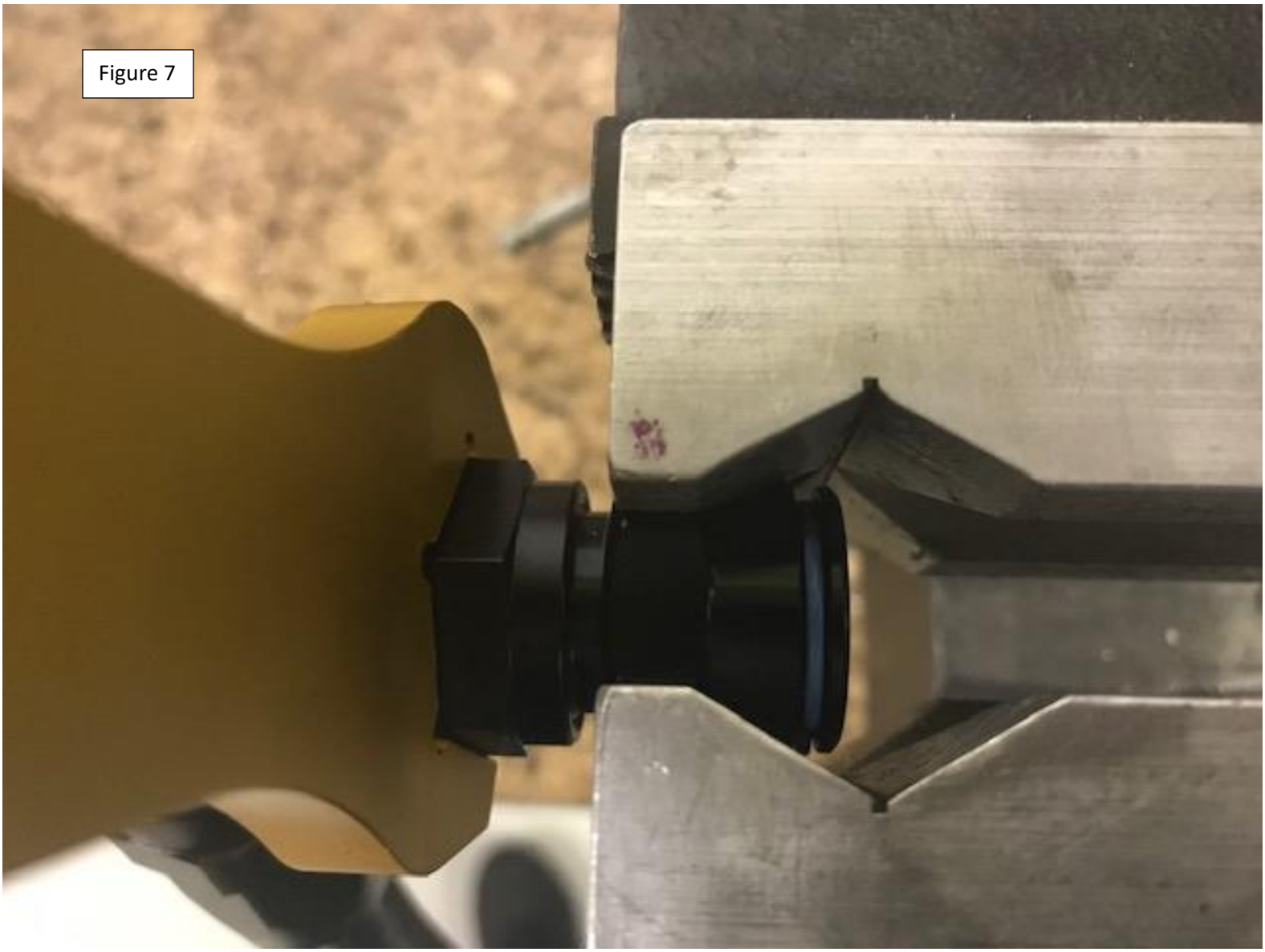


Figure 7

18. Locate the long AN line that has a straight and 90 hose end. Locate the male FORE adapter and tighten this into the 90 hose end on the long line. (Fig. 8)

Figure 8

19. Locate the factory line breakpoint just in front of the fuel tank – passenger side. Remove the safety clip and push in both sides of the release clip to separate line, might get a drain pan ready as fuel will leak so take necessary safety precautions but who are we kidding, you will have gas in your armpit, lets be real. The burning sensation will let you know you are doing it right!
20. Once the main feed line is spilt push the line coming from tank towards passenger side so they no longer line up, at this time grab the somewhat assembled filter and included self tapping screws.
21. Holding the short AN line attached to filter, get the end with female FORE adapter installed onto the factory hardline, the line that curves underneath and runs to engine. Once this is on, place filter up somewhat pulling the AN line tight. It should line up with a raised area on floor that we will put self tappers into and they shouldn't protrude into cabin. (Fig. 9 and 10)

Figure 9

Figure 10

22. **Now that filter is mounted you can see in Figures 9 & 10 that the long AN line which has the male FORE adapter for the factory feed line gets installed in line coming down from tank. Basically the line runs towards rear of car following tank, wraps around and heads directly towards filter. Zip tie and secure line routing behind heat shield and connect to filter inlet, tighten fitting and check the others are tight as well.**
23. **You may swivel in the filter inlet fitting to get line tucked as close to tank as possible then test fit the plastic tank guard we removed in step 15, a little trimming makes the plastic tank guard fit as normal while also protecting line. (Fig. 11)**

Figure 11

24. We are so close now, at this point double check all your fittings, move inside vehicle and double check all connections and connect battery.
25. Let's go ahead and do a couple ignition button cycles and let system prime up, you may notice that after a couple sometimes a squeal will come from pumps, some air in the system along with pumps hitting pressure relief valve causes this and it's nothing to worry about. The Fuel Pump Control Module (FPCM) is on full blast until vehicle is running and under PCM control based on fuel pressure sensor feedback, so key cycles make the pumps hit pressure relief.
26. Check filter area and all fuel lines/fittings for leaks! Fix as needed.
27. Go ahead and fire vehicle up for a couple minutes to be sure all air is out of line. Shut off and double check for leaks.
28. Next we will test that both pumps are operational, with vehicle off, unplug the SECONDARY FPCM, start vehicle. Let it run about 30 seconds and shut off. Now plug the secondary FPCM back in and unplug the PRIMARY FPCM. Start the vehicle for another 30 seconds or so and shut off. Plug back in Primary FPCM.
29. If one module is unplugged and vehicle does not start or didn't stay running, don't call us, we will call you....
30. Kidding, first double check all connections and check the Main Power fuse (30amp), if all that looks good call us at (469-500-7649) for further assistance and details.
31. It should also be noted at no time besides the vehicle not running on one pump that a Check Engine Light (CEL) be produced with codes pertaining to the FPCM when one is unplugged or both plugged in for that matter, if so give us a call.
32. At this point get side panel in truck replaced and secure, install truck "floor".
33. Reinstall back seat bottom cushion by lining up front tabs and giving a hard push down.
34. Now that you have another step done on your vehicle it's time to double check everything in the tune, such as fuel pressure and pump duty cycles, in many cases this can be worked over in the tune to better dial in the system that is now flowing twice the fuel as stock, many leave the settings in the tune so we won't say a tune is required, but consult with us or your preferred tuner.

Thank you again for your purchase from Tapped Performance
Enjoy!