Silly Rabbit Motorsport Dual LPFP upgrade troubleshooting and pressure confirmation guide!

This document will help you through the process of confirming your new dual LPFP setup is operating properly and also help you with any no start issues you may come across after installing this kit.

In order to test proper fuel pump pressure we will be using VCDS in order to run the basic setting "Drain fuel tank" found in the engine control module and look at "Actual Low Pressure Fuel" values. Other interfaces like OBD11 may be able to run this function as well but is not confirmed.

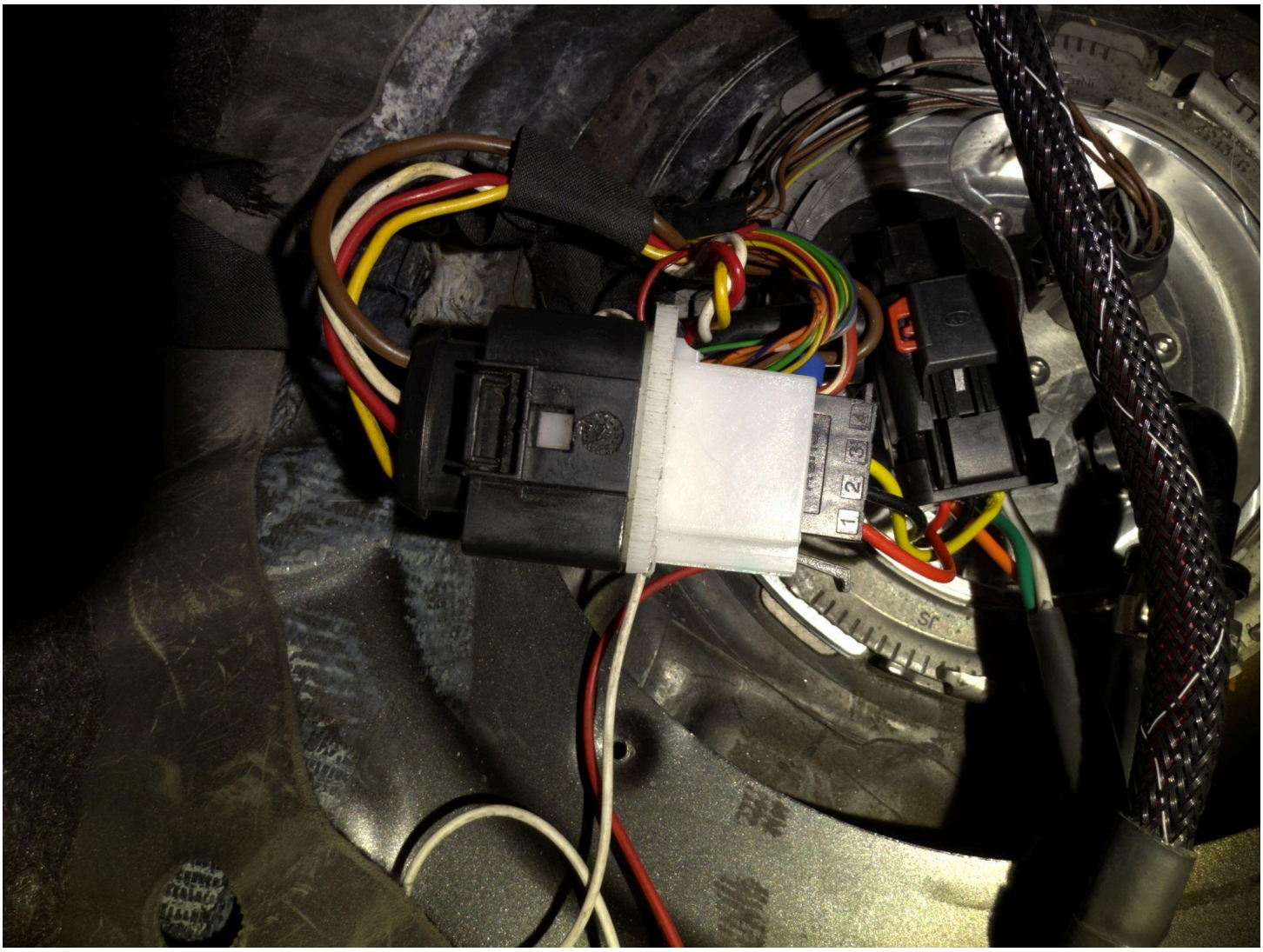
Tools:
In case of needing to repin any of the connectors-

- **you can find the appropriate terminal removal tool found "here" and you will need to use the larger 3mm tool**
- **Needle nose pliers**
- **Pick tool**

If after install you go to start the car but it does not start, or attempt to start, you should be getting a code relating the fuel or the pump itself similar to "Electrical malfunction". This is solely relating to the OEM pump and not the secondary that is controlled by the SRM fuel pump controller. It is good practice to start by having the SRM controller unplugged so we can remove any variables for issues you may run into. We will plug that controller back in later on after addressing the primary OEM pump. Below is a picture of how the wiring should be on the adapter for the primary OEM 4 wire pump. The OEM wires consist of Brown, White, Red and Yellow.

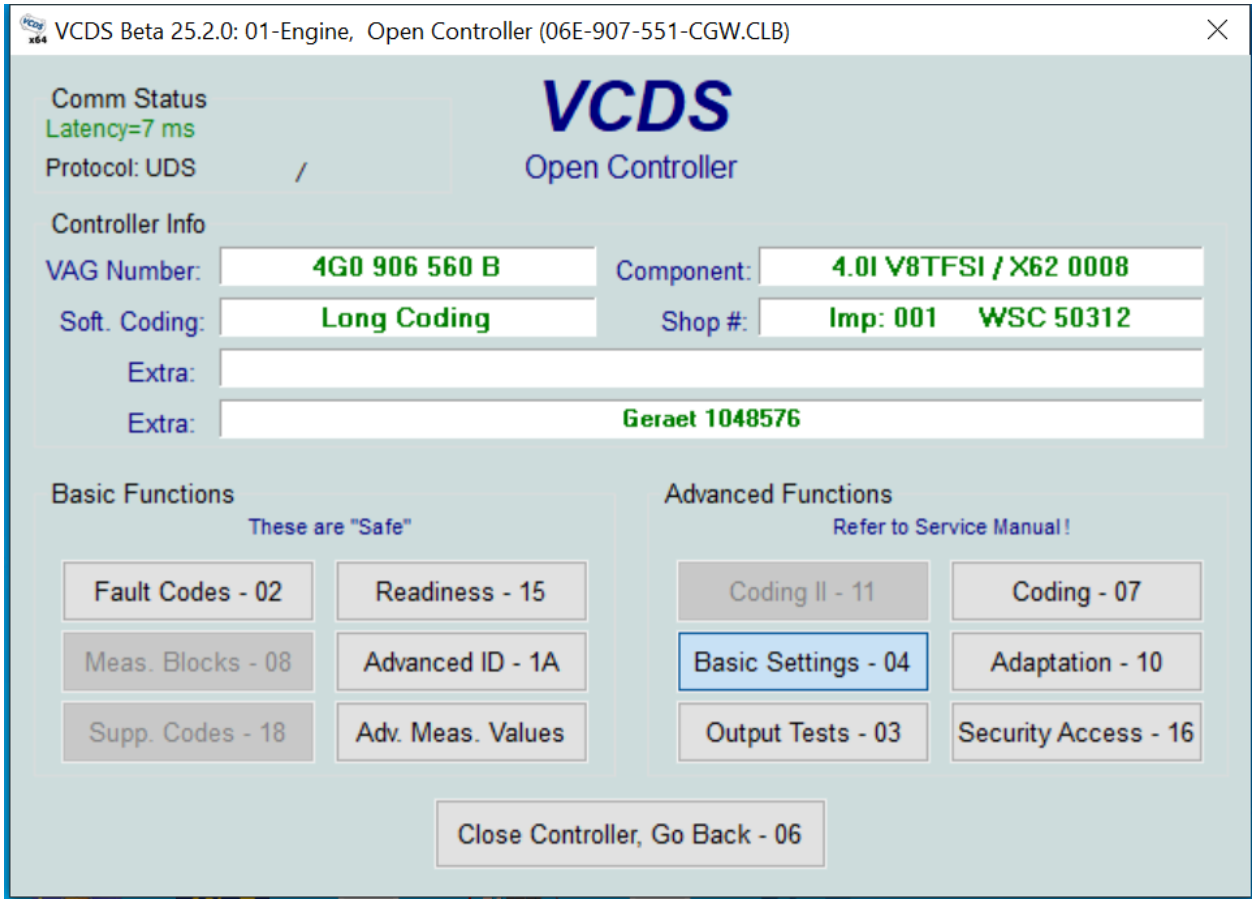
When the original connector goes into the adapter you will only be left with 3 wires; Black, Red and Yellow like seen below. The color doesn't matter as much as the orientation of where the wires go on the harness. This is where some adjustments might have to be made. If you have a wire going to the same pin as

the Brown ground wire from the OEM side then this will have to be moved. You want only the White, Red and Yellow wires from the OEM side to be pinned to the adapter. From the adapter side you will want pin 1 to go to pin 1 on the DTM connector, Pin 2 to pin 2 and pin 3 to go to pin 3. If this is incorrect, please make the necessary adjustments to your connector.



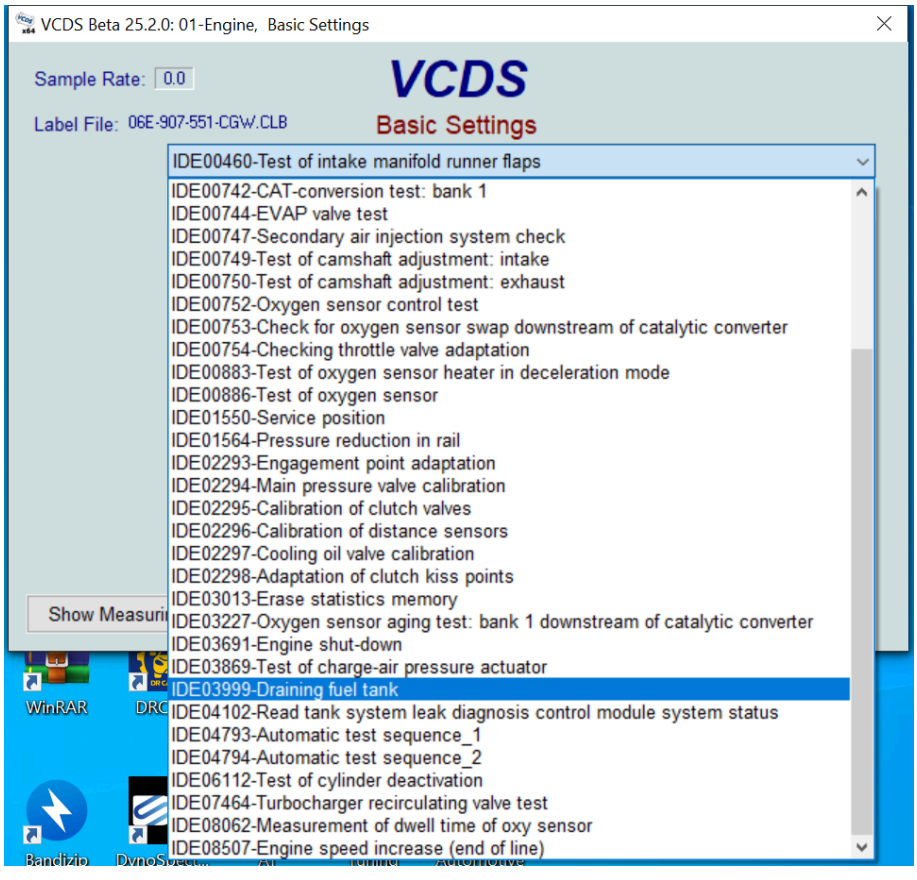
This should correct the electrical malfunction code from your original pump and you should now hear your pump prime when you turn on the ignition. It may be faint to hear so having a second person may help but we will be confirming this with VCDS now.

Plug your VCDS cable in and open the program. Once open, locate module -01 Engine

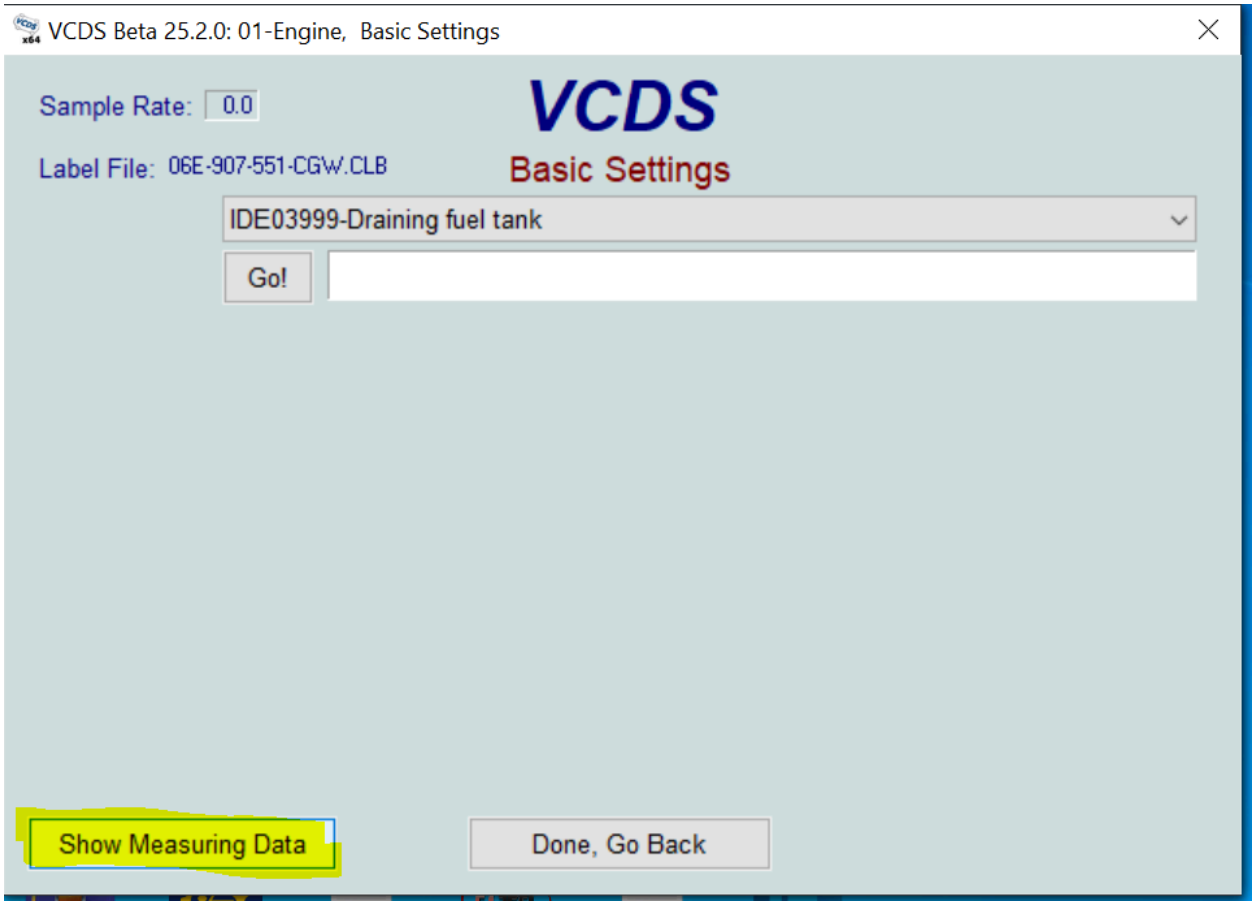


- Select Basic Settings and click the drop down menu.

- Scroll to the bottom and select “Drain Fuel Tank”

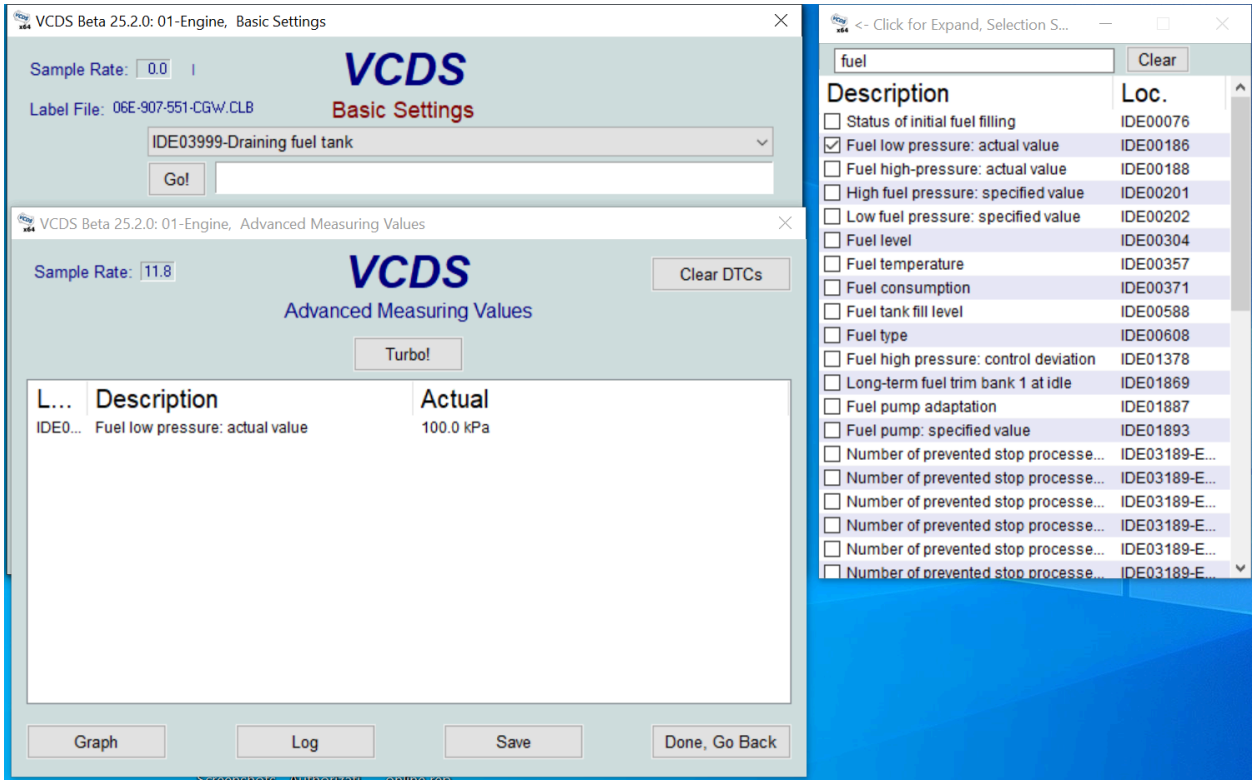


Before you do anything, now select “Show Measuring Data” in the bottom corner.

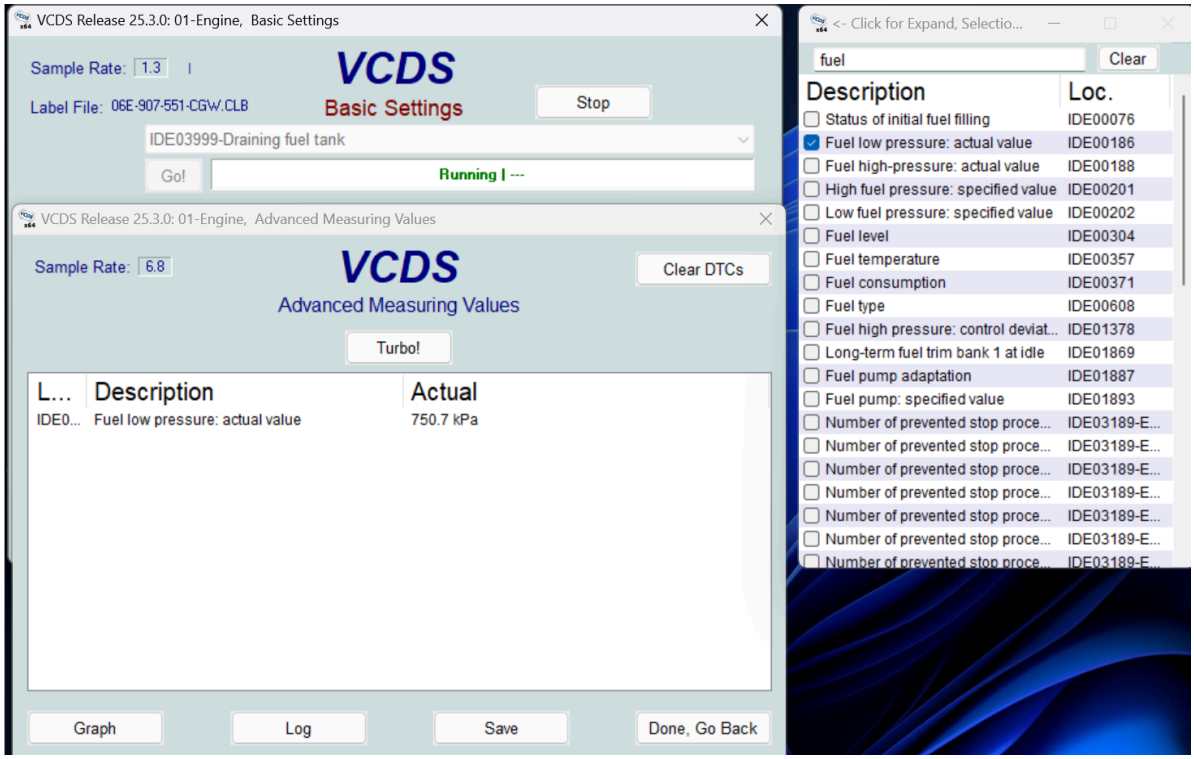


Search “Fuel low pressure: Actual Value”, this is going to show us that the pump is making pressure when we run the test. Again we are only checking the primary oem pump is working at this point as the secondary should be unplugged. The value will likely be low before starting the test at a “atmospherical value” of 100kpa which means no pressure. The secondary pump does not have a check valve which in a stock system would hold pressure and prevent back flow but since the secondary and primary are now tied together there is no check valve.

This is for a few reasons, like flow restriction and the possibility of having a failure causing bits of the check valve to get lodged in the fuel system causing many more issues and headache to find and fix the issue. So for the sake of performance “the juice is not worth the squeeze”.

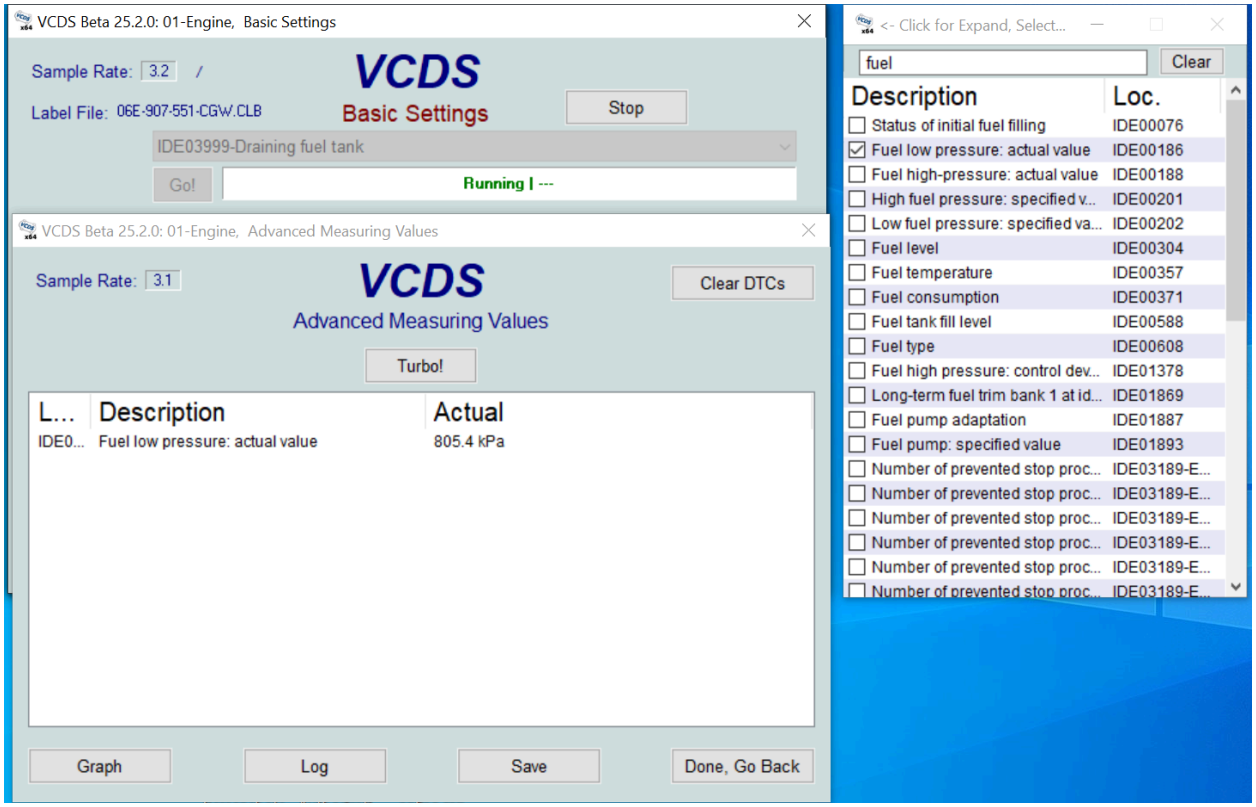


Now that we have our values up we can now perform our test. Make sure the engine is NOT running during this test. Press “Go” and note the value of your results.



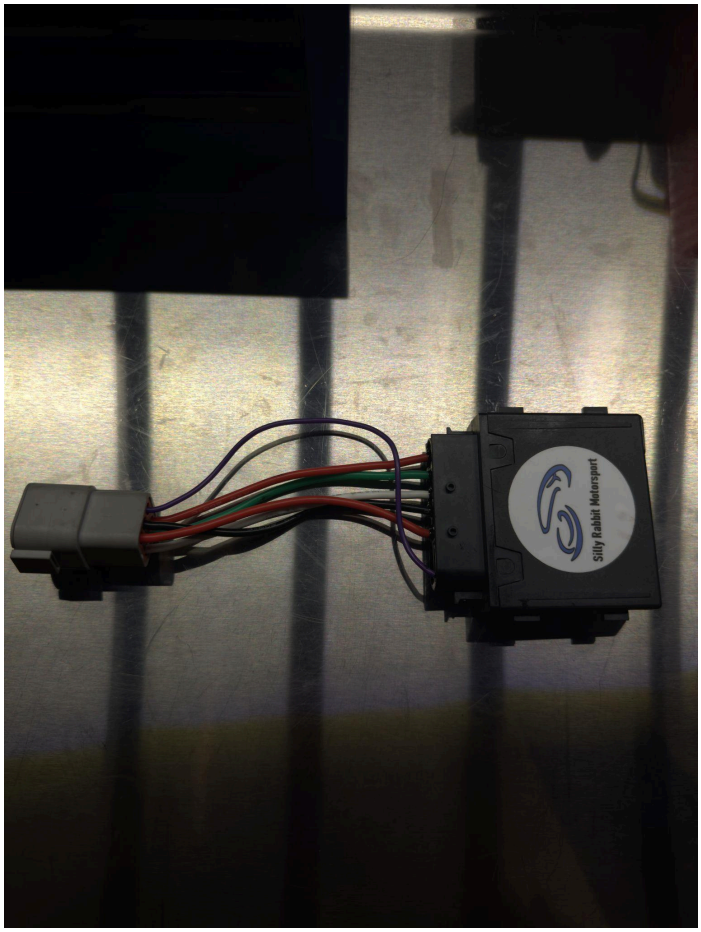
You want to see the pressure go to about 750kpa which is standard pressure for the OEM Pump. If you get any results like 130-200kpa then you will have to swap out 2 wires on the adapter side of the connector and test again until you get a value of about 750kpa.

Now we will plug in the SRM controller and test the pressure again. This time we want to see a pressure of 795-805kpa or similar

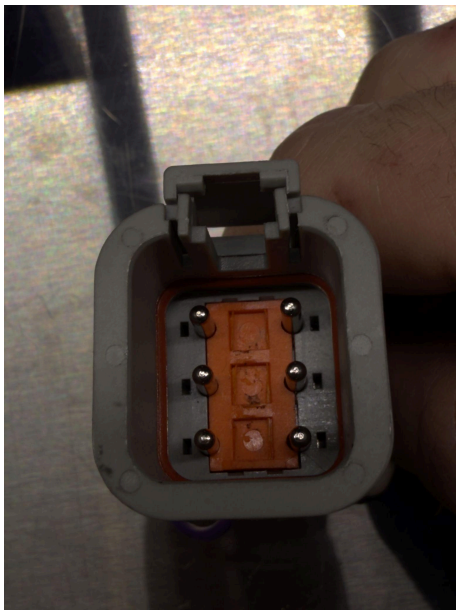


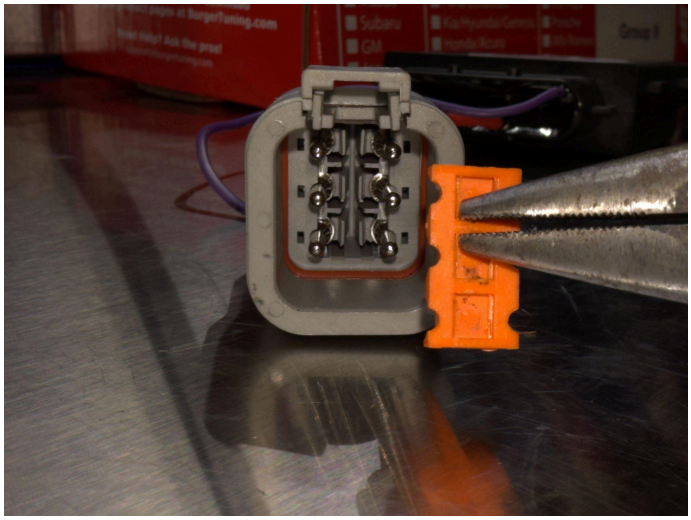
If you don't get values above or they are less then the primary pump numbers then you will have to swap wires on the controller connector so we can correct the flow.

Remove your controller and bring it over to your bench so we can start the de-pinning process of the DTM connector

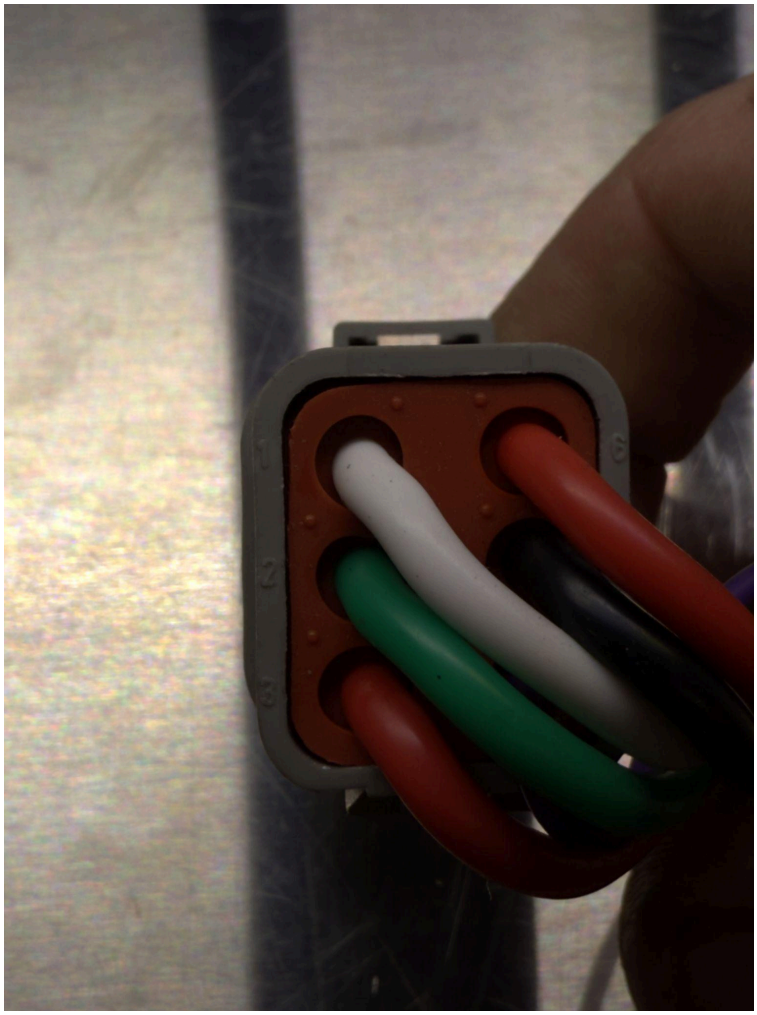


Now that we have our controller out we are going to want to removing the lock from the connector which can be done easily with needle nose pliers like shown

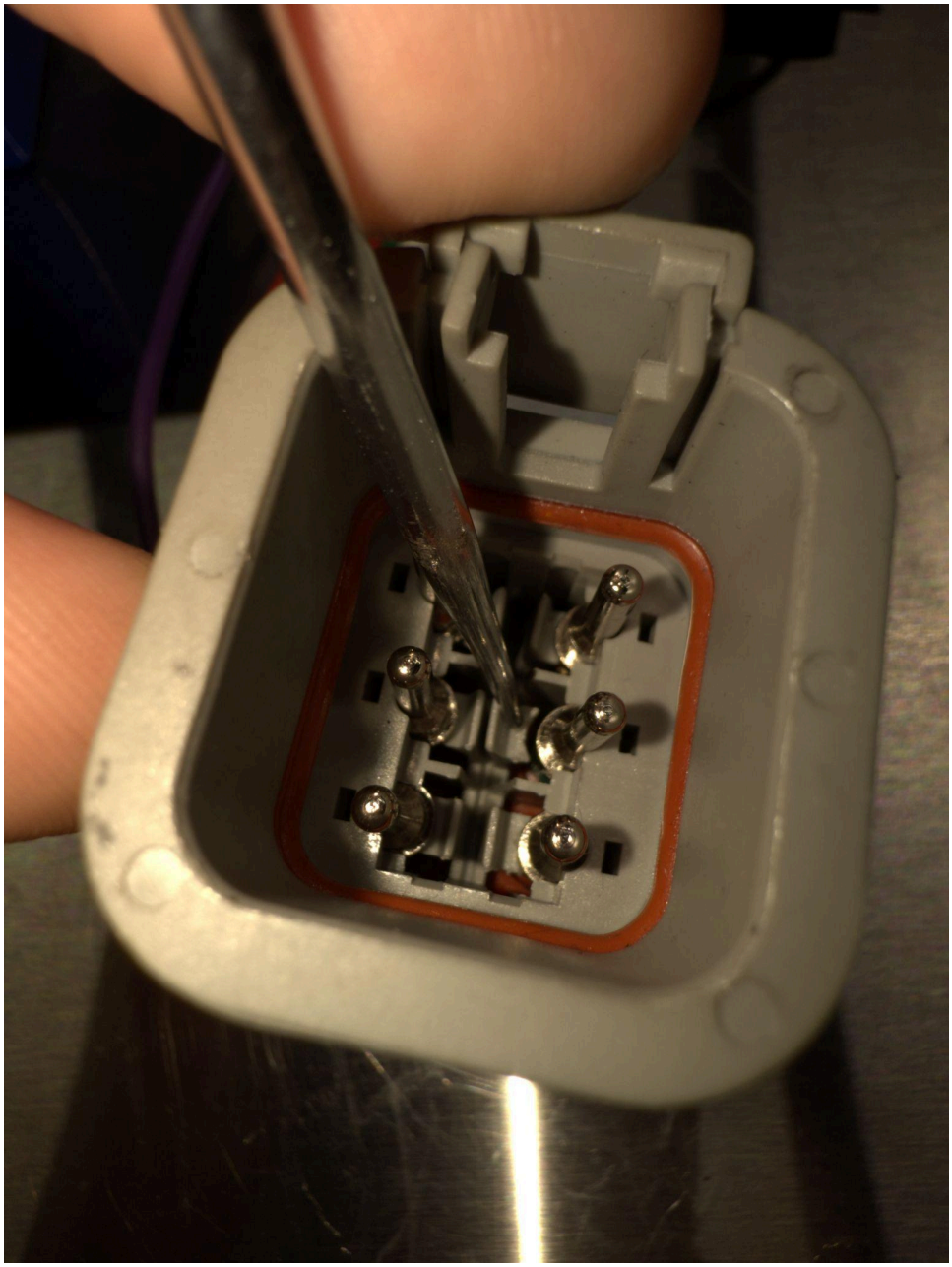




Now we want to identify the wires we are going to be swapping. Look at the wires on the back of the connector and we will only want to swap pins #1 #2 and #3. The other pins 4, 5, 6 are unrelated to what we are needing to accomplish.

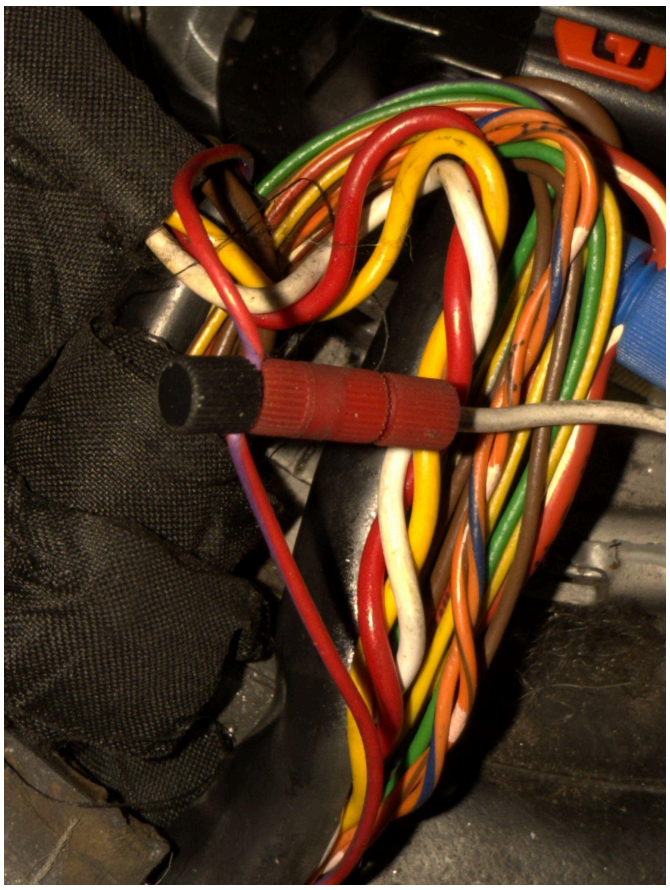


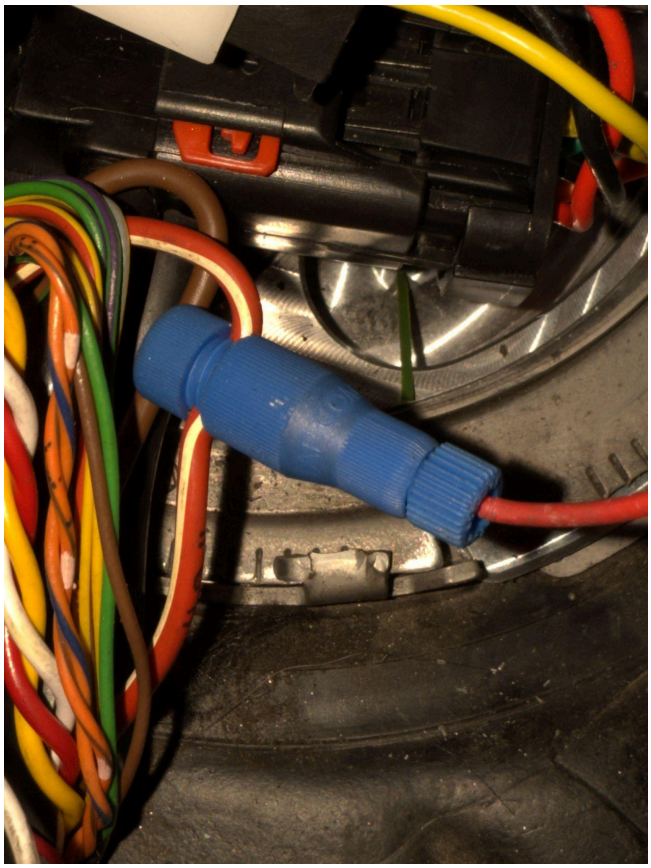
Again do not touch the Purple, Black and Red wires on 4, 5, 6. You are going to get a pick tool and unlock pin #1 and #2 and gently pull the wire out of the connector Like shown. Swap the wire location and re-insert the pins, making sure they lock in by confirming a “click” of the lock or giving a gentle pull to make sure they do not back out of the connector.



At this point you are ready to re-install the connector lock and plug your SRM controller back into the wiring harness in the car. Rerun the basic settings test to confirm you are now reaching the desired fuel pressure confirming the proper operation of your new SRM Dual LPFP Kit!

Some additional pictures of the install will be shared below to help you make sure you tapped the correct wires for your added wiring harness as well.





The White wire will be tapped into the smaller Red/Purple wire.

The Red wire gets tapped into the larger Red/White wire.

Once all is well with your installation you can tuck your control into the front of the seat liner by lifting the white locking tab that holds the seat, pulling the fabric forward and inserting the controller in that location. Re-install the metal cover for the pump after making sure all your connectors are connected and the fuel line is tight and reinstall your seat.

All that's left to do is fire up your car and take it on a test drive!

Special Thanks to Sean for the continued support of the Audi platform that allows us to go faster through the ingenuity of products like this, while also continuing to update such products as time goes on allowing them to adapt and get better with each iteration!

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