## **Jeep Fuel Injector Cleaning**

My Jeep Sahara was not as peppy as it used to be and had trouble accelerating at times. After check into various options, the most likely problem was dirty fuel injectors. So I did some research and found the following video (Jeep Wrangler JK Fuel Injector Replacement - 3.8L - Bing video) which did an awesome job of describing what to do .

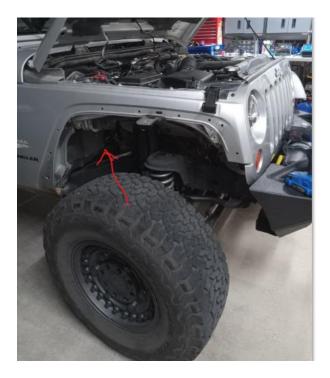
I also found a tool that allows you to see the spray pattern of your injectors under various run conditions so I bought it on Amazon (<u>Autory Smart Fuel Injector Cleaner Machine and Tester, Ultrasonic Fuel</u> <u>Injector Cleaner Kit for GDI, 4-Cylinders Car Fuel Injector Cleaner Tool and Tester with Touch Screen</u> <u>Display (amazon.com).</u>)

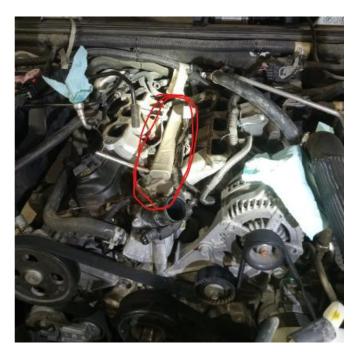


Here is a shot of the engine compartment. Sadly the fuel rail is UNDERNEATH the intake manifold so you have to take all of that apart first.



To make matters worse, you can't take the intake manifold off without taking the EGR tube off first. And to get to the lower end of the EGR tube you need to remove the entire fender liner (the red arrow below shows where the bottom of the EGR tube is located.





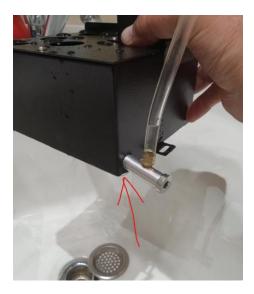
After an hour or two of work I was finally able to get to the fuel rail (circled in red in the image below.)

Here is a picture of me with the fuel rail removed in my hand.



After finally getting the fuel rail (and injectors) out, I was really excited to test the injectors with my new tool. I set the tool up and started filling it with the Industrial Isopropyl alcohol that is required – and was immediately surprised to see that the alcohol was spilling out all over my work bench!

After having a few choice words for the quality of this tool, I took it apart and removed the fuel reservoir. I then filled it with water and observed the water pouring out from the drain tube (red arrow in image below.)

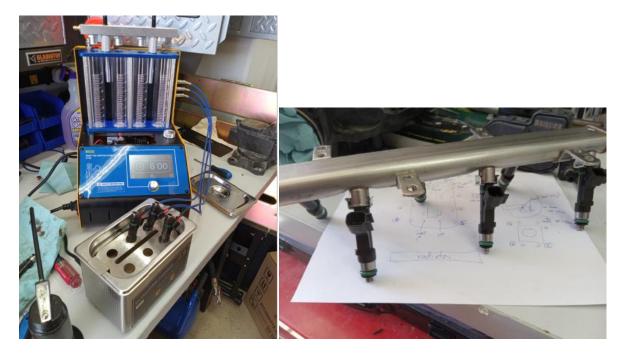


After pushing the tube with very minimal force the tube snapped off proving it was indeed damaged. I had to use a screw extractor to remove the tube threads from the fuel reservoir.



I was able to plug the hole with a 3/8" bolt but to add insult to injury, when I put the reminder of my alcohol into the unit it told me that there wasn't enough to run the test! So I had to order more. I also contacted Amazon to have the vendor send me a new drain tube. I ended up returning it because the vendor said it would take over a month to send me a new part. I won't be buying any Autory products in the future.

At this point I was pretty ticked off and just wanted to clean the injectors and put the Jeep back together. Fortunately, that part of the tool was still functional so I was able to clean the injectors (3 at a time because I couldn't justify buying the more expensive 6 injector tool) and re-assemble the fuel rail with new o-rings.



To get an idea of the dirt the tool removed you can see the dirty cleaner fluid below.





Finally, after almost 10 hours of work, I had the Jeep back together and everything was working fine.

Because I was not able to see the spray patterns before and after I cleaned the injectors, I can only speculate if the cleaning improved anything. I do, however, notice a marked improvement in acceleration going uphill now that they are everything is clean.