



a division of iA-Performance

PO Box 550, Boulder CO 80306 t: 520-882-2821 f: 303-449-4481

## iA-GR-F-V3

**Liability Disclaimer:** By attempting to install this kit, you have entered into an agreement that releases SC Industries, iA-Performance, iA Tuning, Innovative Automotive, and Stephen Clark from any and all liability and responsibility. Furthermore, the driver, technician, and or vehicle owner assumes all risks and liability to the vehicle, vehicle occupants, surroundings, spectators, and anything else both inside and outside of the vehicle. We recommend a certified professional with the proper safety equipment install this kit. Proceed at your own risk and as always, use common sense\*

### Parts List

- (1) Feed line
- (1) Return line
- (8) 5" zip ties
- (1) 5/16" SS clamp for return line
- (1) m6-1.0 x 16 Hex Head Flange Bolt
- (1) m6-1.0 Hex Flange Nyloc Nut
- (1) Reducer vacuum Tee 6mm to 4mm
- (1) Vacuum hose, 4mm by 15 inches long
- (1) Vacuum hose barbed cap

### Tools required

- (1) 10mm socket & ratchet
- (1) 10mm Box Wrench
- (1) Wire cutters or knife (cut zip ties)
- Assorted shop towels / rags (for fuel spills)
- Safety Glasses
- Silicone spray or similar lubricant
- (1) Lisle Angled Disconnect Tool Set #39400 (or similar: Company23 #545 or AST #8028)

### **\*\*Vehicle Note\*\***

The following instructions are correct for the 2008-2019 North American Subaru STi Models. Verify your application is within this range before performing work.

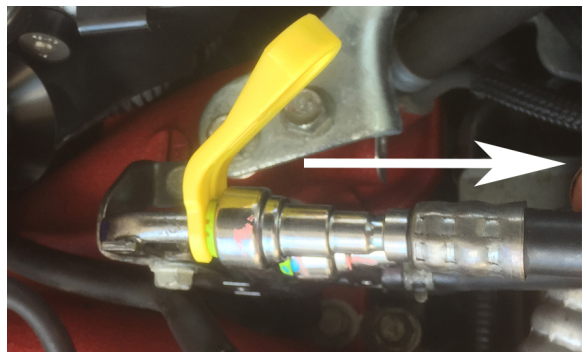
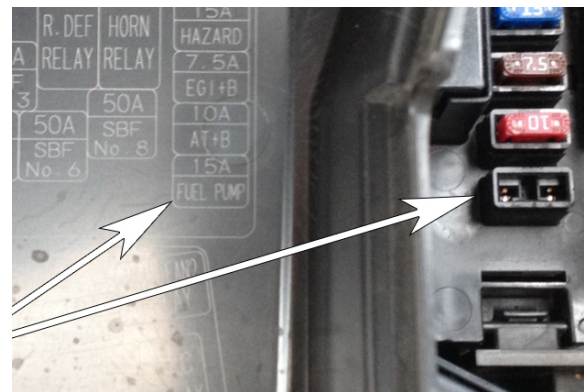
## **Factory Hose Removal\*** No quick disconnect tool? No problem, read the FAQ...

1) Although in the OFF position, the fuel system will most likely still be pressurized. To decrease the chances of fuel spray and spillage, it will be important to sever the power to the fuel pump. The fuse location is found on the underside of the engine bay fuse lid, labeled 'Fuel Pump.' Once removed, attempt to start the vehicle until it no longer wishes to run.

2) Remove the negative battery terminal with a 10mm wrench then cover the fuse panel and remove any sources for spark or flame since fuel will be present.

3) A rag will be needed for this step. Using the Angled Disconnect Tool, remove the 2 quick disconnect fittings at the fuel rails first, as well as the 2 at the firewall. The fittings should slide off easily when the tool is correctly inserted. Do not forget to hold a rag around the disconnect fitting while it is removed as fuel will still spray and or drip. Don't have a quick disconnect tool? Not a problem, read the FAQ.

4) Remove the vacuum hose from the factory Fuel Pressure Regulator (FPR), then remove the entire FPR and Damper assembly as a single unit. The plastic fuel line bracket will be kept in place on the vehicle, as it will be used to hold the new lines.





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## Lock Removal & Installation

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5) With the new fuel hose in hand; remove the white locks from the quick disconnect connector ends, 4 in total. Take the locks to the engine bay and place 1 on each of the metal hose barbs. Use a small amount of assembly lubricant (silicone spray, or similar), to lubricate the outer portion of the locks. When the hose end is properly inserted, a click/snap will be felt/heard. Please refer to the Feed and Return Line steps below for proper line attachment.



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## Feed Line Installation

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6) This is a non-directional hose that attaches to the following barbs. When in doubt, consult with the Subaru Service manual to ensure the barb locations are correct prior to installation.

Firewall Feed– Top Barb  
Fuel Rail Feed – Top Barb

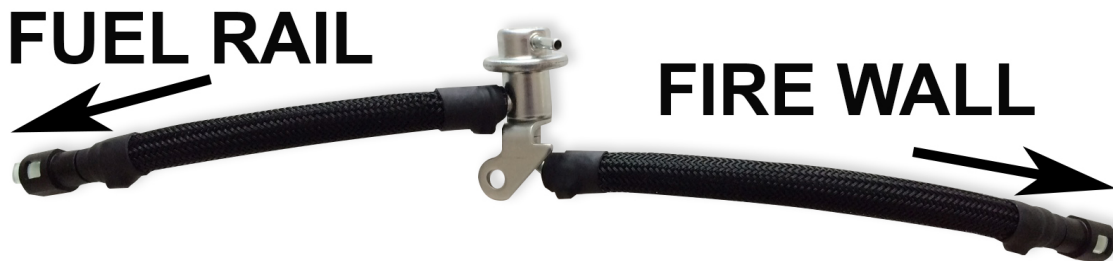
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## Return Line Installation

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7) This is a directional hose, so pay careful attention to the orientation. When in doubt, consult with the Subaru Service manual to ensure the barb locations are correct prior to installation. At this point, attach the “Fuel Rail” side hose with the included 5/16” hose clamp.

Firewall Return – Lower Barb  
Fuel Rail Return – Middle Barb



## Vacuum Line Relocation

8) With both the Feed and Return lines attached to their respective hose barbs, move to the bypass valve and cut the 6mm hose. Install the supplied reducer tee into the newly cut 6mm bypass valve hose and secure all 6mm hose ends with the supplied zip ties, including the hose end where the 6mm hose attaches to the intake manifold (by the throttle body). **Note, if any of these hoses blow off, then the engine will run dangerously lean, so it is imperative to use zip ties to secure all hose ends.**

9) While using the supplied 4mm vacuum hose, attach it to both the FPR and newly installed tee. Secure both hose ends with the supplied zip ties as shown. The 4mm hose length may be trimmed to better suite individual applications

10) With the factory fuel pressure manifold reference hose no longer in use it will be necessary to block the hose off with the supplied barbed cap. Again, secure both ends with a zip tie and tuck the hose downward to achieve a clean looking install. If the vehicle is equipped with a boost gauge then this short hose and cap may be removed, allowing the boost gauge to install at this vacuum port.



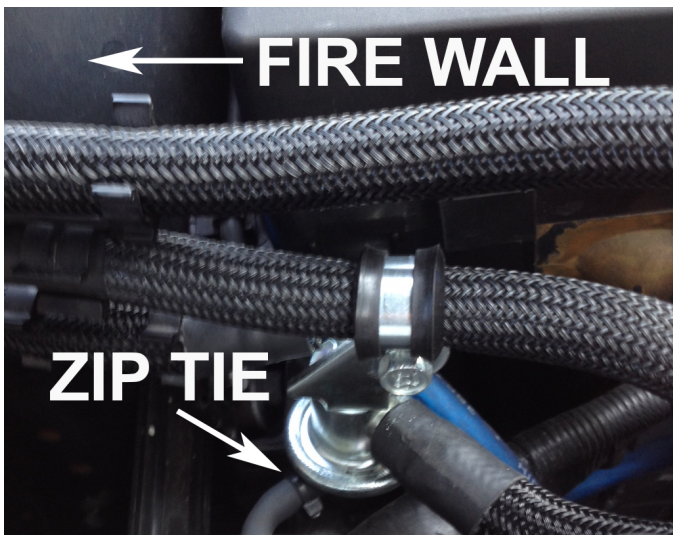
## Final Steps

11) Press the Feed and Return lines into the black plastic bracket, located on the strut tower.

12) Secure the FPR by placing the band clamp around the EVAP hose and attach the other end with the supplied hex bolt and nyloc nut. Note: If the FPR is mounted directly to a metal object, then a ticking noise may be heard within the cabin. For this reason we opt to use the insulated band clamp method since it provides sound suppression.

13) Now that all hoses are attached, reconnect the negative terminal of the battery and reinstall the previously removed Fuel Pump fuse.

14) The system will now need to be pressurized. To do so, turn the ignition key to the RUN position. On the ignition, this is the last key position before the motor physically cranks over. While in the RUN position, wait 3-5 seconds, and then turn to the OFF position. Repeat this cycle 5 times and then check for any fuel leaks. In the event there is a leak, immediately correct the issue before running the motor.



15) Start vehicle and inspect again for fuel leaks. In the event of a fuel leak, immediately turn off the motor and make repairs. Never operate a vehicle with a fuel leak.

16) Now that the fuel system has been changed, it is highly advised to have the ECU retuned. Tuning, via E-Tune, is one of several additional services offered by iA-Performance.

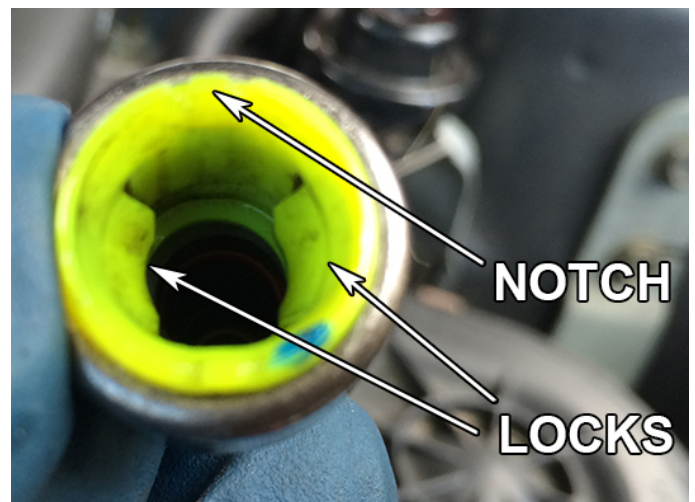
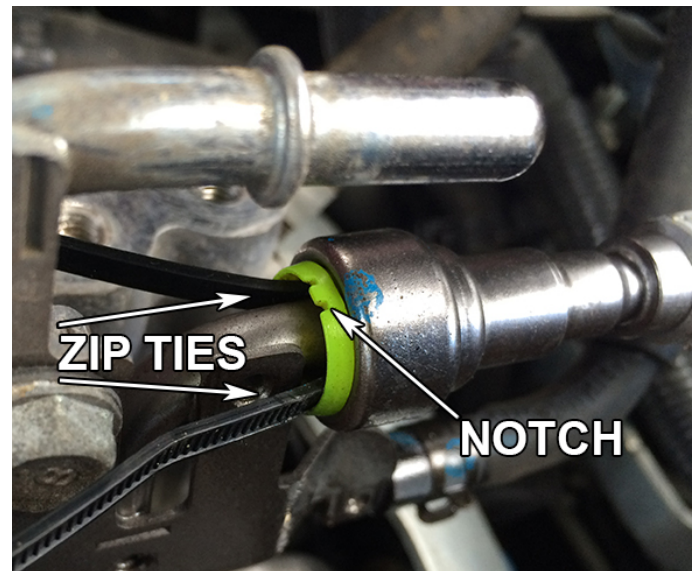
Congratulations on successfully installing your iA-Performance GR Stumble Fix Kit!

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## FAQ

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- a) **Issue:** Vehicle is lean upon start up and hesitates to keep running.  
**Possible Solution:** Uninstall and reinstall the fuel kit in the event air is trapped in the system.
- b) **Issue:** Vehicle is lean when under boost conditions.  
**Possible Solution:** Ensure FPR vacuum line is not pinched, nor damaged, and is securely attached at both ends
- c) **Issue:** Parts are missing or lost.  
**Solution:** Contact iA-Performance for replacements
- d) **Issue:** A quick disconnect tool isn't available.  
**Possible Solution:** Proceed after following the safety steps in this guide. If the fuel system's pressure is not fully bled-off before this step, then the hose may shoot off, potentially causing harm with the spraying of fuel. As it turns out, 1 medium sized zip tie will also do the trick. Cut the zip tie in half and slide the 2 squared in between the metal barb and yellow locking sleeve. While looking at the quick disconnect, there is a small notch in the yellow locking sleeve. Rotate the notch so that it points upward and then insert the zip ties 90 degrees to either side of the notch. Wrap the hose end with a rag and, with light pressure, pull the hose off of the hose barb. The zip ties are used to depress the locks within the yellow barrel. The fuel kit includes small zip ties, which may or may not be adequate for this process.



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