IAG PTFE Fuel Line Kit for use with COBB Flex Fuel Sensor 2008-14 Subaru WRX

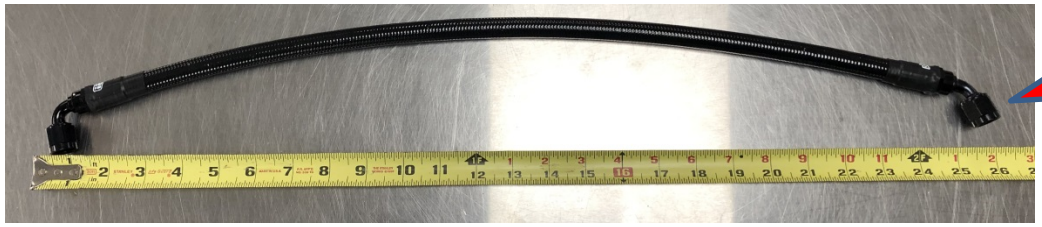
Part# - IAG-AFD-2221

Thank you for choosing the IAG PTFE Flex Fuel Line Kit. Installation of this kit requires COBB Tuning part# 315600, which is not included with this line kit. IAG recommends professional installation for this product. If you do the installation yourself, please reference the OE Service Manual for steps not listed in these instructions. If you do not own a Service Manual you can access and download the Subaru Service Manual for your car online at techinfo.subaru.com ($34.95).

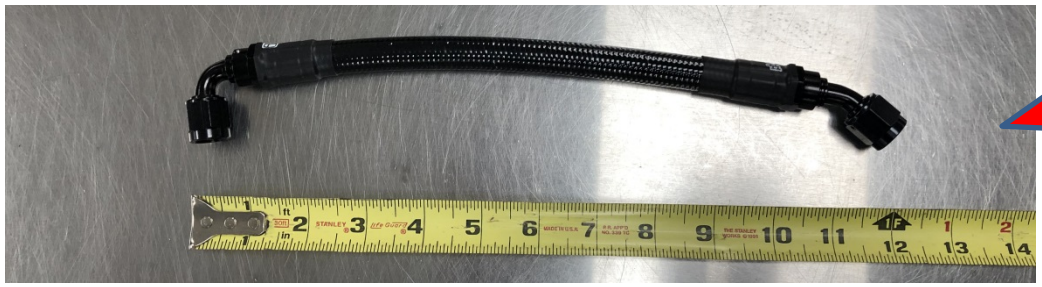
Parts List		
Part Name	**Quantity**	**Notes**
Hose 1	1	32.25” Long with 90deg x 90deg Female -6 AN Fittings
Hose 2	1	26.25” Long with 90deg x 60deg Female -6 AN Fittings
Hose 3	1	12.375” Long with 90deg x 45deg Female -6 AN Fittings
Hose 4	1	16” Long with 60deg x 30deg Female -6 AN Fittings
Hose 5	1	15.25” Long with 30deg x 150deg Female -6 AN Fittings
Hose 6	0	Not included in this application.
Hose 7	1	15.375” Long with 180 deg SAE x 90 deg
Hose 8	1	14.125” Long 90 deg SAE x 45 deg
FPR Bracket	1	Long Powder coated Bracket with 4 Holes
-6 AN Y-Fitting	1	It’s a Y-Fitting with 3 Male -6 AN Fittings
Y-Fitting Bracket	1	L Shaped Bracket to Hold Hose 1 to the short block, uses M4 Rivnut and Bolt
Mounting Clamp	1	Clamp for Y-Fitting
M4 Socket Head Screw	1	Bolt to attached Y-Fitting Clamp To L-Bracket
M8x1.25x16 Hex Head Bolt	1	Bolt to attach L shaped bracket to the short block
-8 ORB to -6 AN Fuel Fittings	4	These go in your IAG Fuel Rails
-6 ORB to -6 AN Fuel Fittings	3	These go in your Aeromotive FPR
SAE Quick Connect to -6 AN Male	2	These adapt the OEM Hard Fuel Lines to -6 AN Fittings
14mm Hose Separator	1	This makes things nice and clean.
M6 x 16mm Hex Head Screws	2	To Mount FPR Bracket
¼” to 3/16” Vacuum Reducer	1	Used to 3/16” vacuum line to ¼” firewall EVAP hard line
¼” Vacuum T	1	Installed between the EVAP solenoids
3/16” Vacuum T	1	Installed between BOV and intake manifold (cut OEM line)
3/16” Vacuum Line	2’	Installed between 3/16” Vacuum T and Fuel Pressure Regulator
1/8” Vacuum Line	2’	Installed between EVAP solenoid and Firewall hard line
Vacuum Cap	1	Used to cap OEM fuel pressure reference port
4” Zip Tie	1	Used for vacuum cap.

This is all the parts laid out. Please note that each hose is identified by overall length and type of fitting used. You will see on the next page how each hose is measured and how you can identify the proper hose. We will refer to each hose as “Hose 1, Hose 2, Hose 3, etc.”

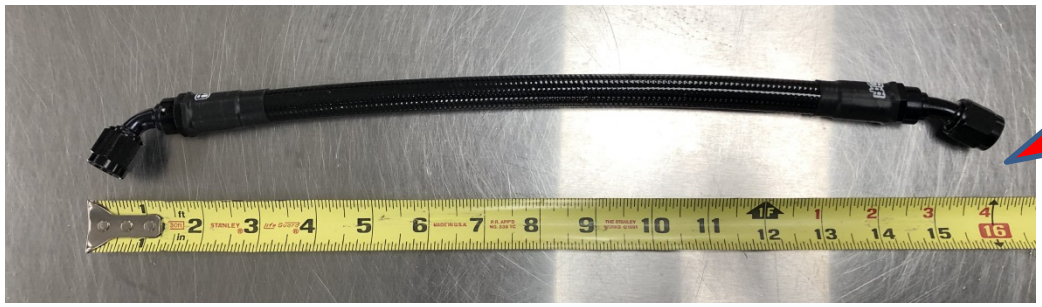
Hose 1 (32.25” Length) has two 90deg Fittings.



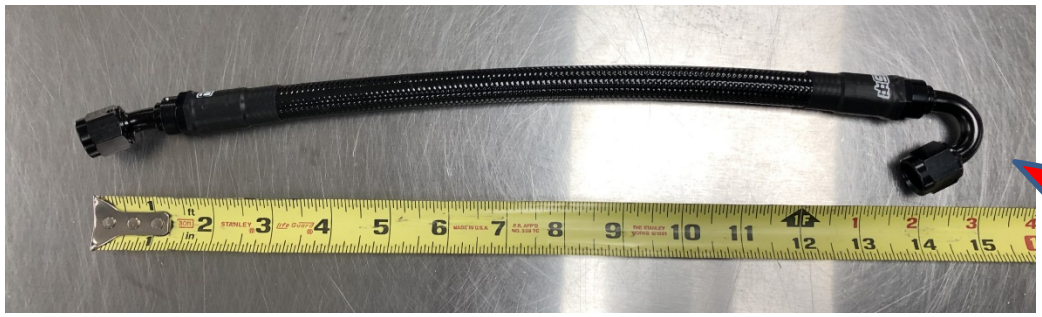
Hose 2 (26.25” Length) has 90deg and 60deg fittings.



Hose 3 (12.375” Length) has a 90deg and 45deg fittings.

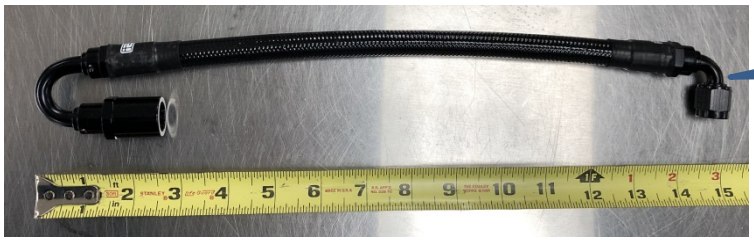


Hose 4 (16” Length) has 60deg and 30deg fittings.



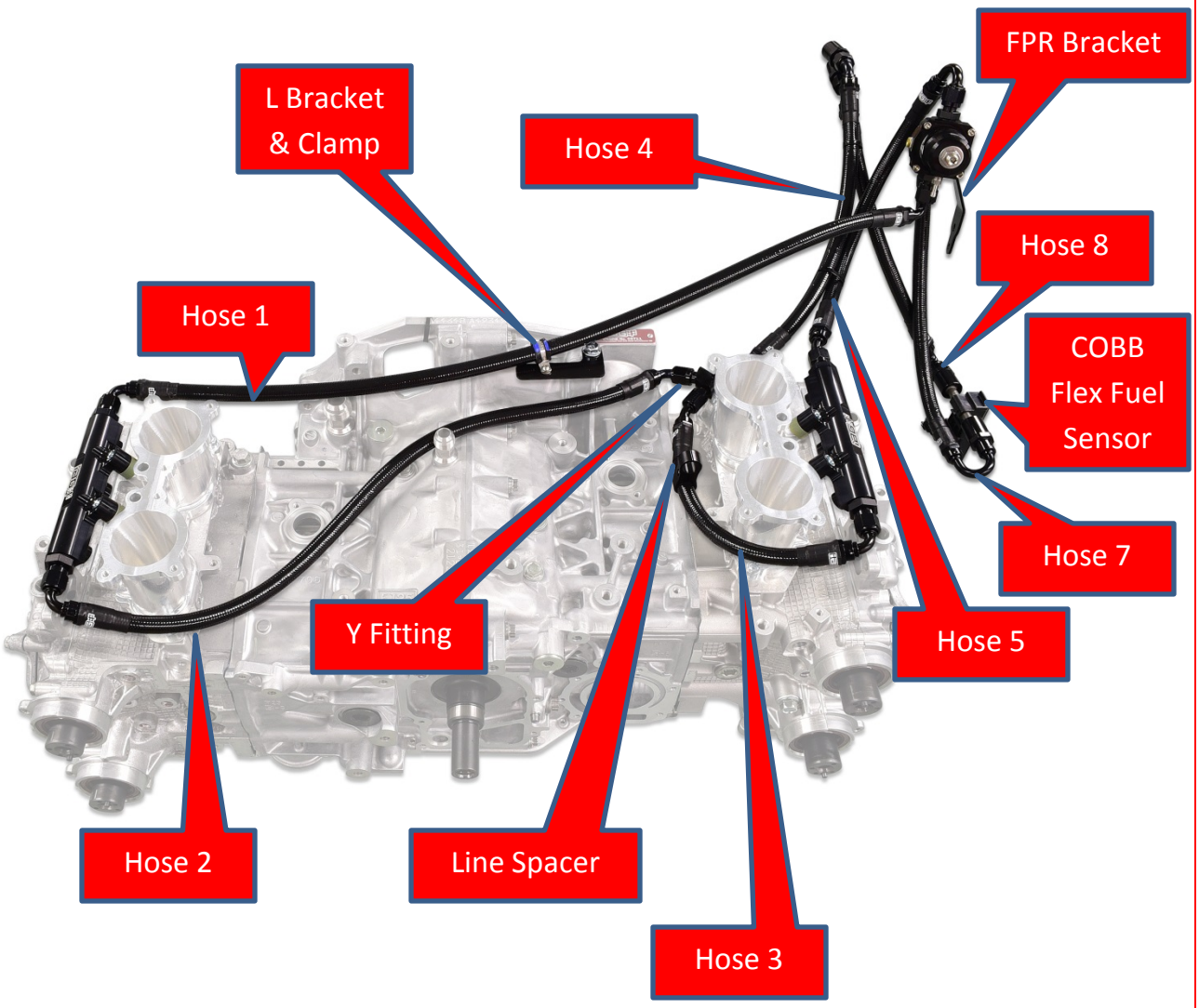
Hose 5 (15.25” Length) has 30deg and 150deg fittings.

- Hose #6 not used or included with this kit.



Hose 7 (15.375” Length) has a 180deg SAE x 90deg fittings.

Hose 8 (14.125” Length) has a 90deg SAE x 45deg fittings.


FPR Bracket
L Bracket & Clamp
Hose 4
Hose 8
Hose 1
COBB Flex Fuel Sensor
Hose 7
Y Fitting
Hose 5
Hose 2
Line Spacer
Hose 3

Hose 3

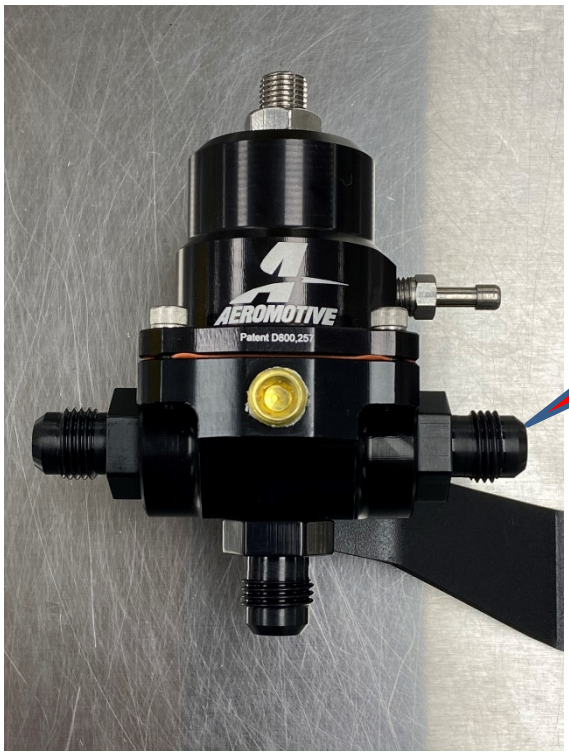
ALWAYS apply lube to all O-rings for this installation. Dry O-rings can tear and that's bad.

-8 ORB Fittings (larger) are installed in the fuel rails.

The -6 ORB Fittings are installed in the Aeromotive FPR.

Please note that the fitting should be fully flush when installed properly. Torque these fittings to 16 ft/lbs.

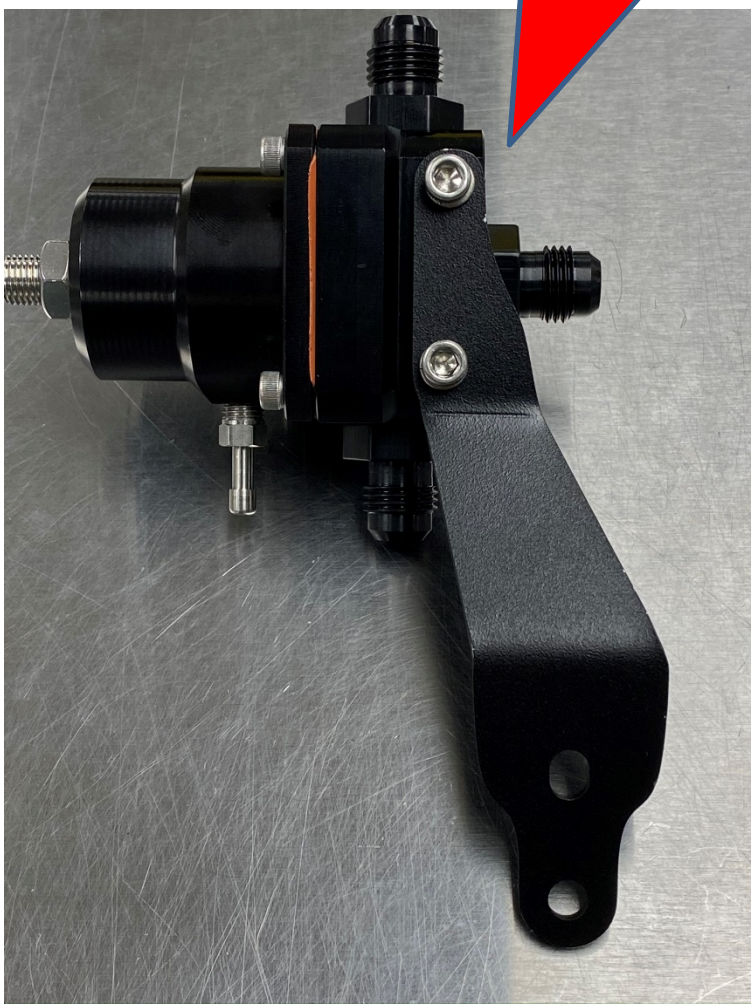
-8 ORB's installed with lube in the fuel rails. Note the fitting is flush. Torque these fittings to 29 ft/lbs. Do not over-tighten!



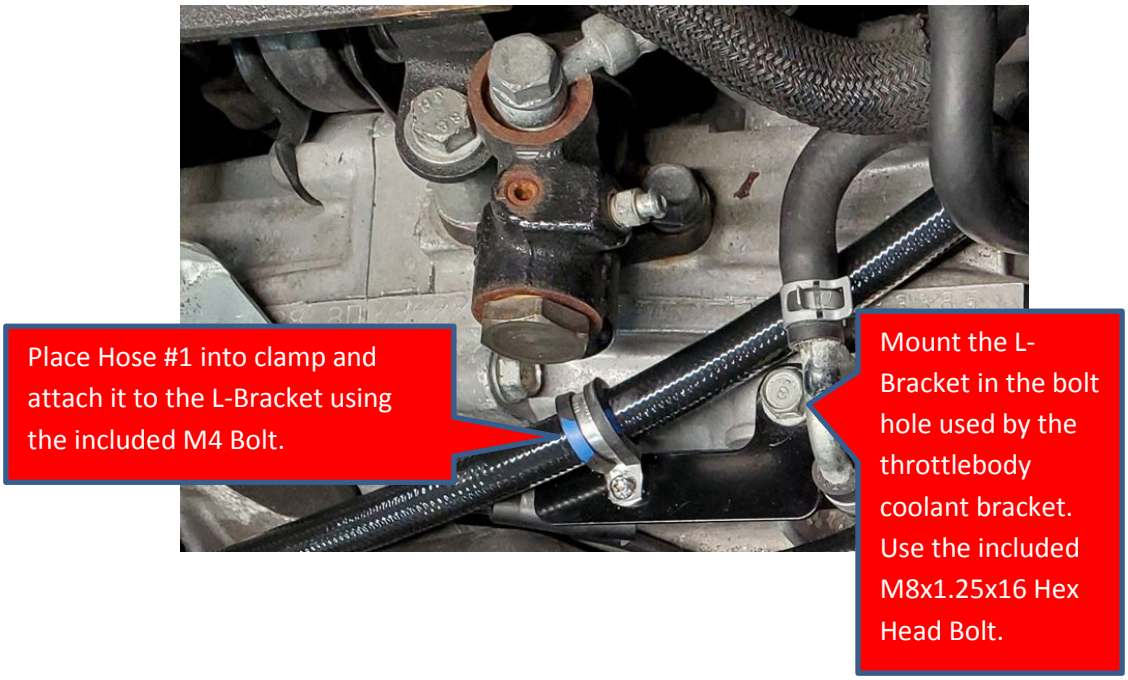
All 3 Fuel Fittings (-6 ORB to -6 AN) should be already installed, if not, install now with lube and torque to 16 ft/lbs. If used, install your Fuel Pressure Sensor or Gauge in the NPT port on the front now.

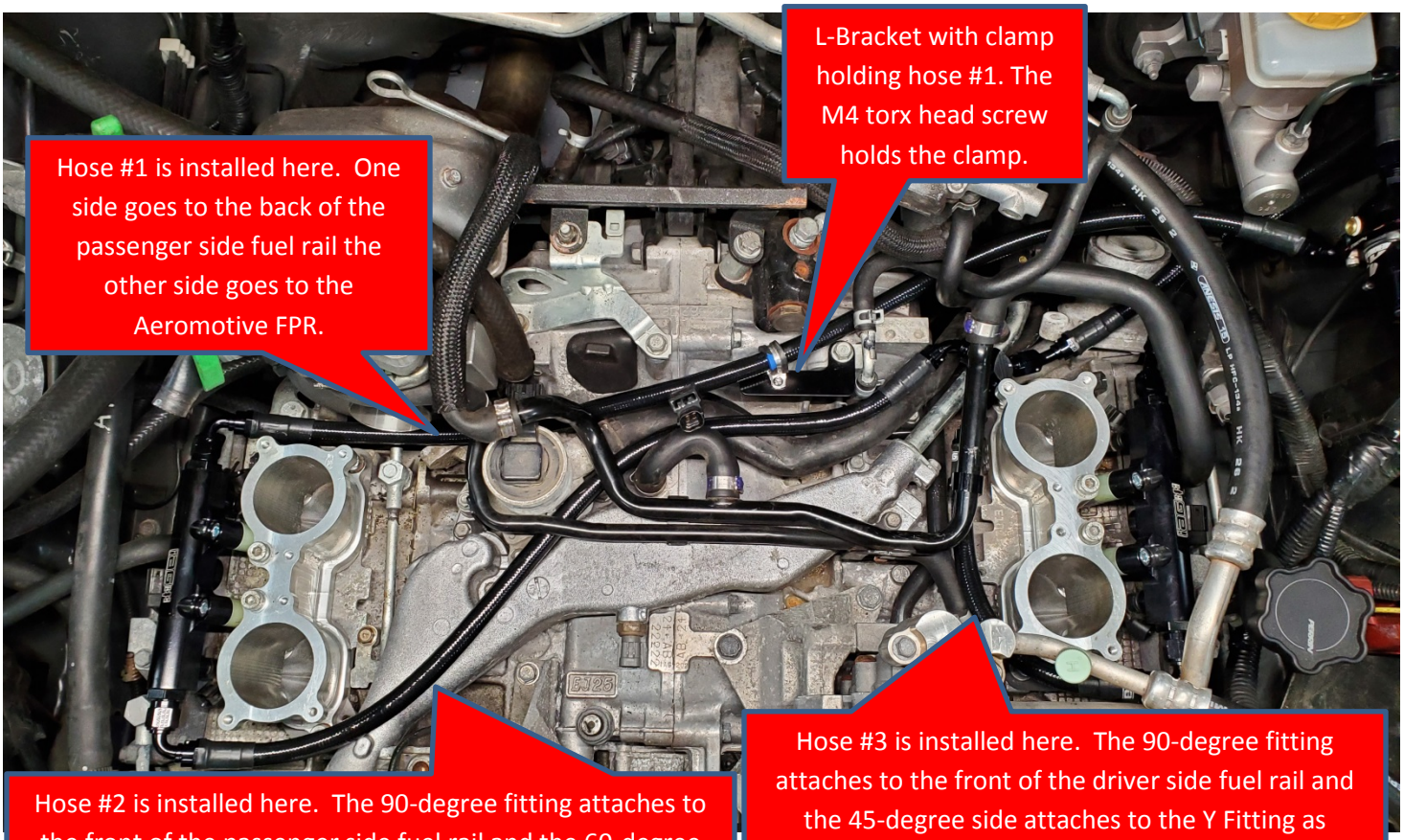
Install the FPR Bracket using the hardware supplied with the Aeromotive FPR. Pay attention to the orientation of the bracket in all 3 photos.

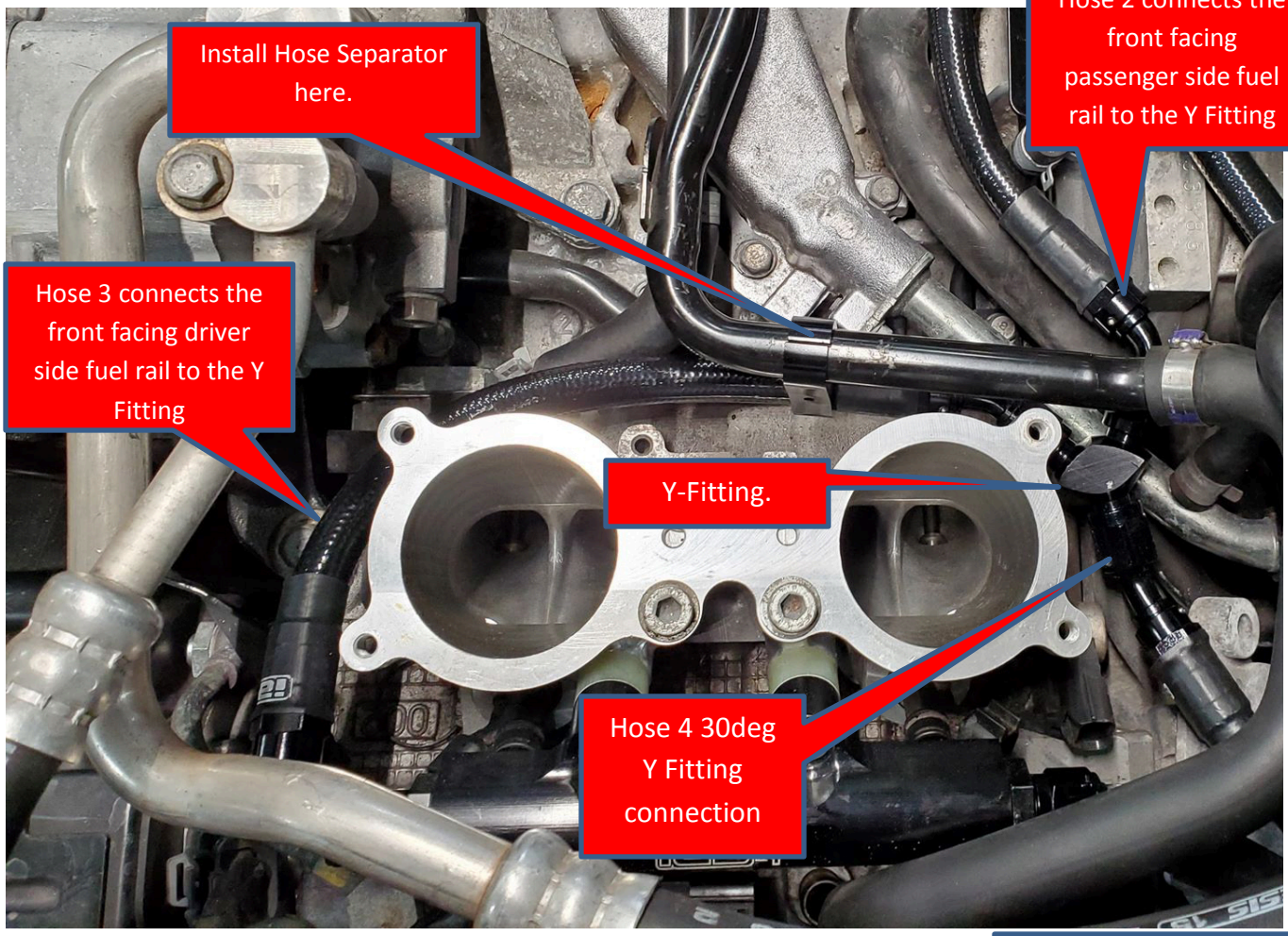
Top view of the FPR Bracket installed on the Aeromotive FPR.

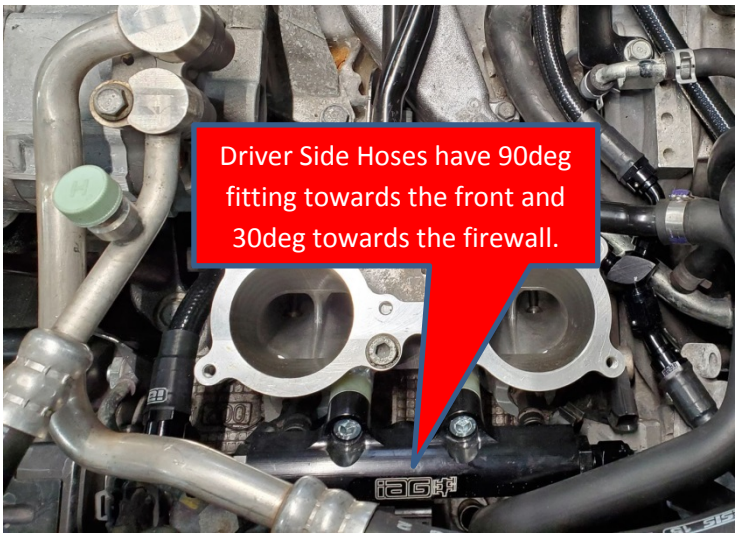


- Pull the fuel pump fuse and crank the car until it stalls. Then, try to start again. This will relieve the majority of fuel pressure.
- Remove factory fuel hoses and regulator assembly per the OEM service manual.
- Use the supplied vacuum cap, secured with the zip tie, to block off the OEM Fuel pressure regulator port at the intake manifold.
- Remove the factory intake manifold per the OEM service manual.
- Remove the factory TGV's per the OEM service manual.
- Remove the factory fuel lines per the OEM service manual

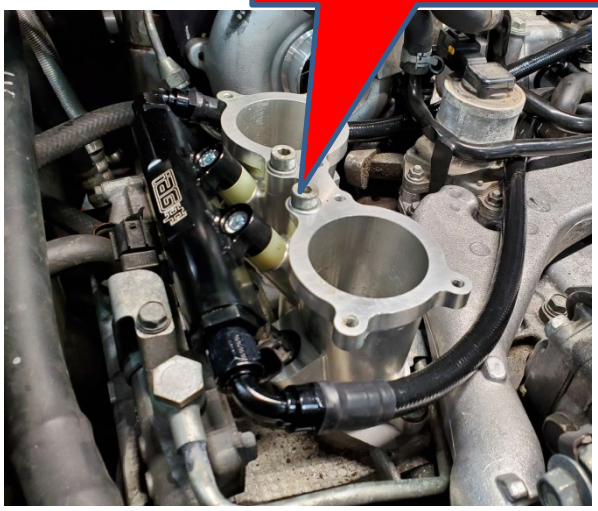


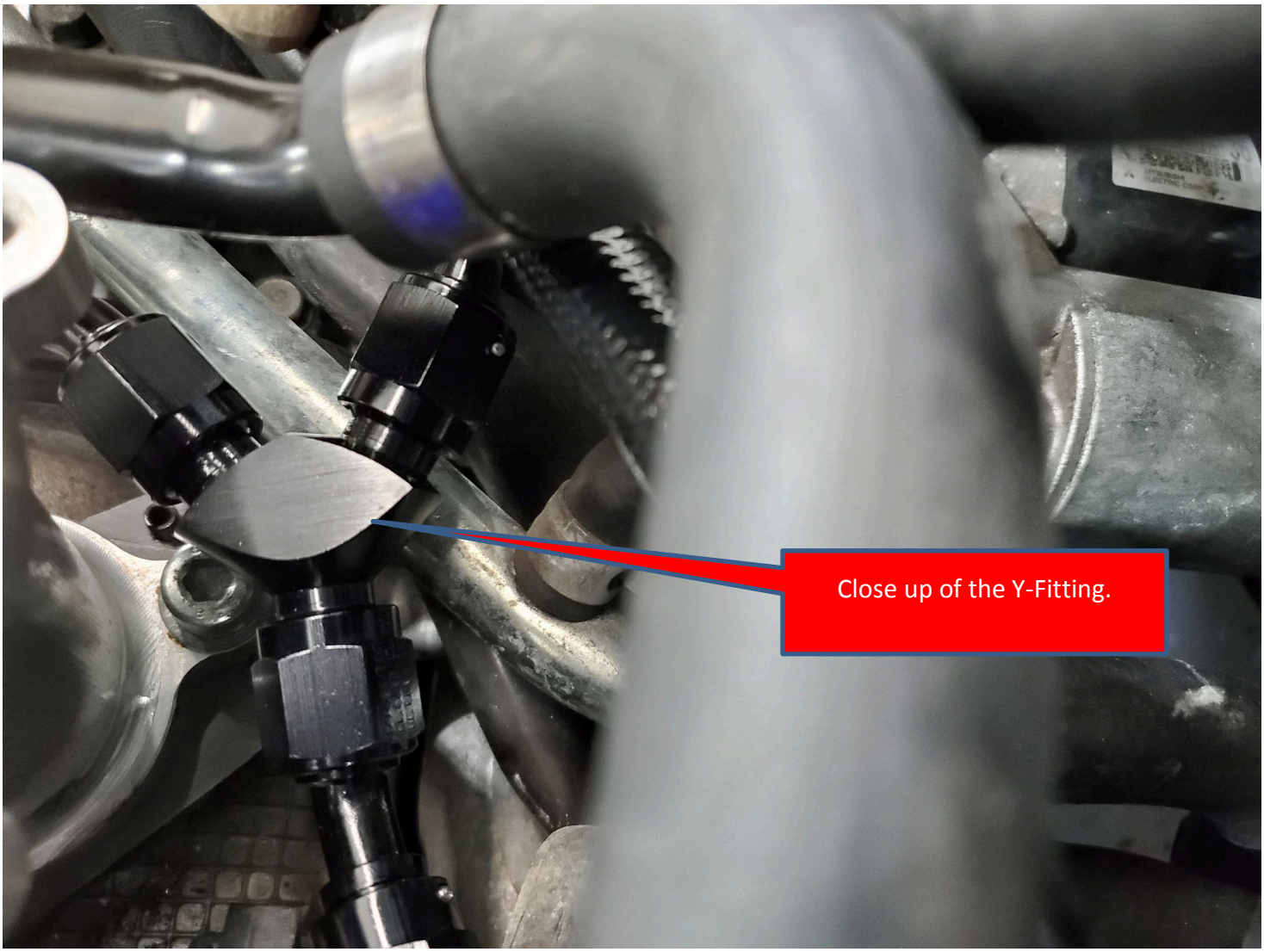

Hose #1 is installed here. One side goes to the back of the passenger side fuel rail the other side goes to the Aeromotive FPR.
L-Bracket with clamp holding hose #1. The M4 torx head screw holds the clamp.
Hose #2 is installed here. The 90-degree fitting attaches to the front of the passenger side fuel rail and the 60-degree fitting attached to the Y-Fitting as shown. Ensure that the hose is routed UNDER the factory hard lines here.
Hose #3 is installed here. The 90-degree fitting attaches to the front of the driver side fuel rail and the 45-degree side attaches to the Y Fitting as shown.

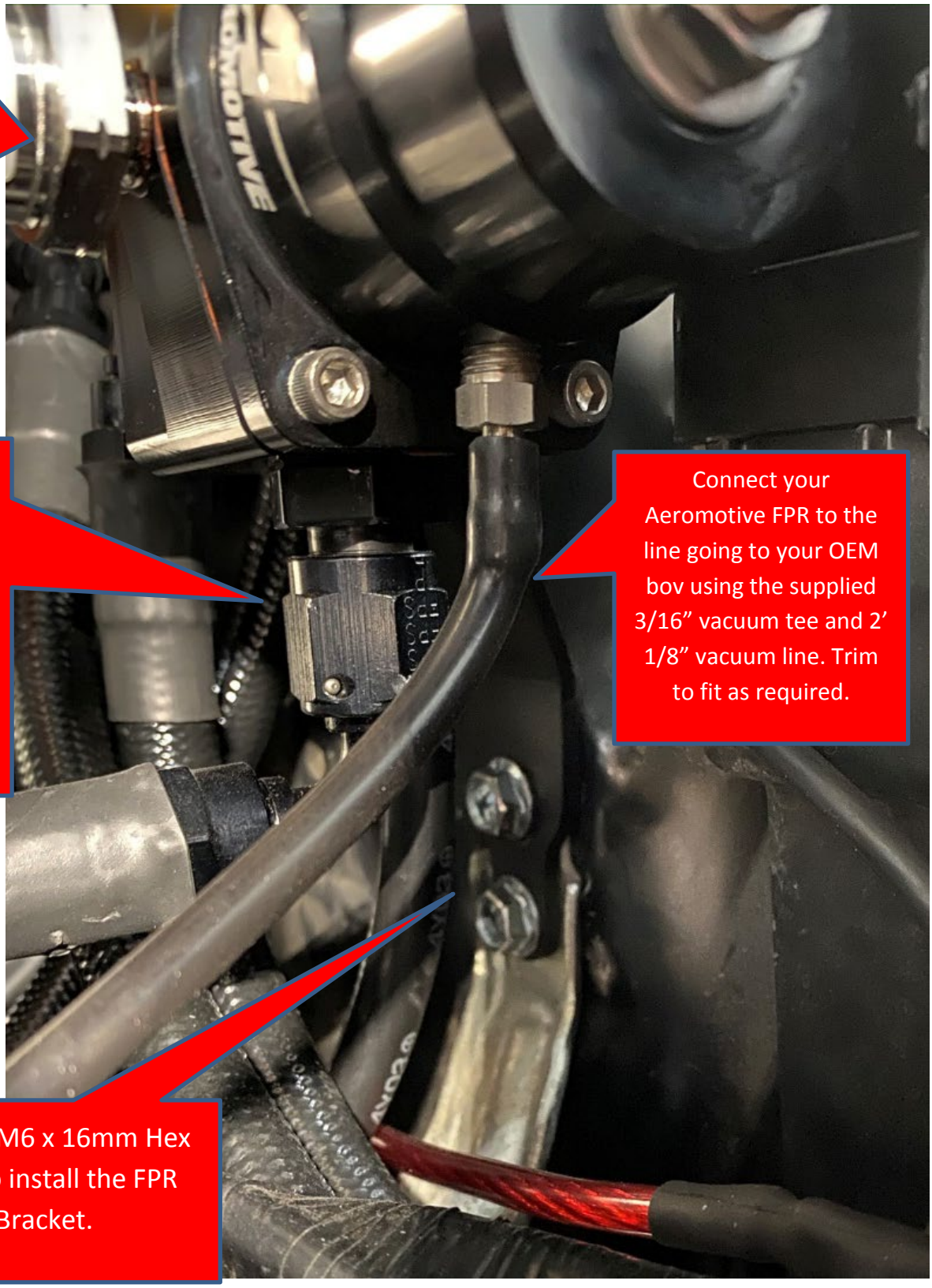


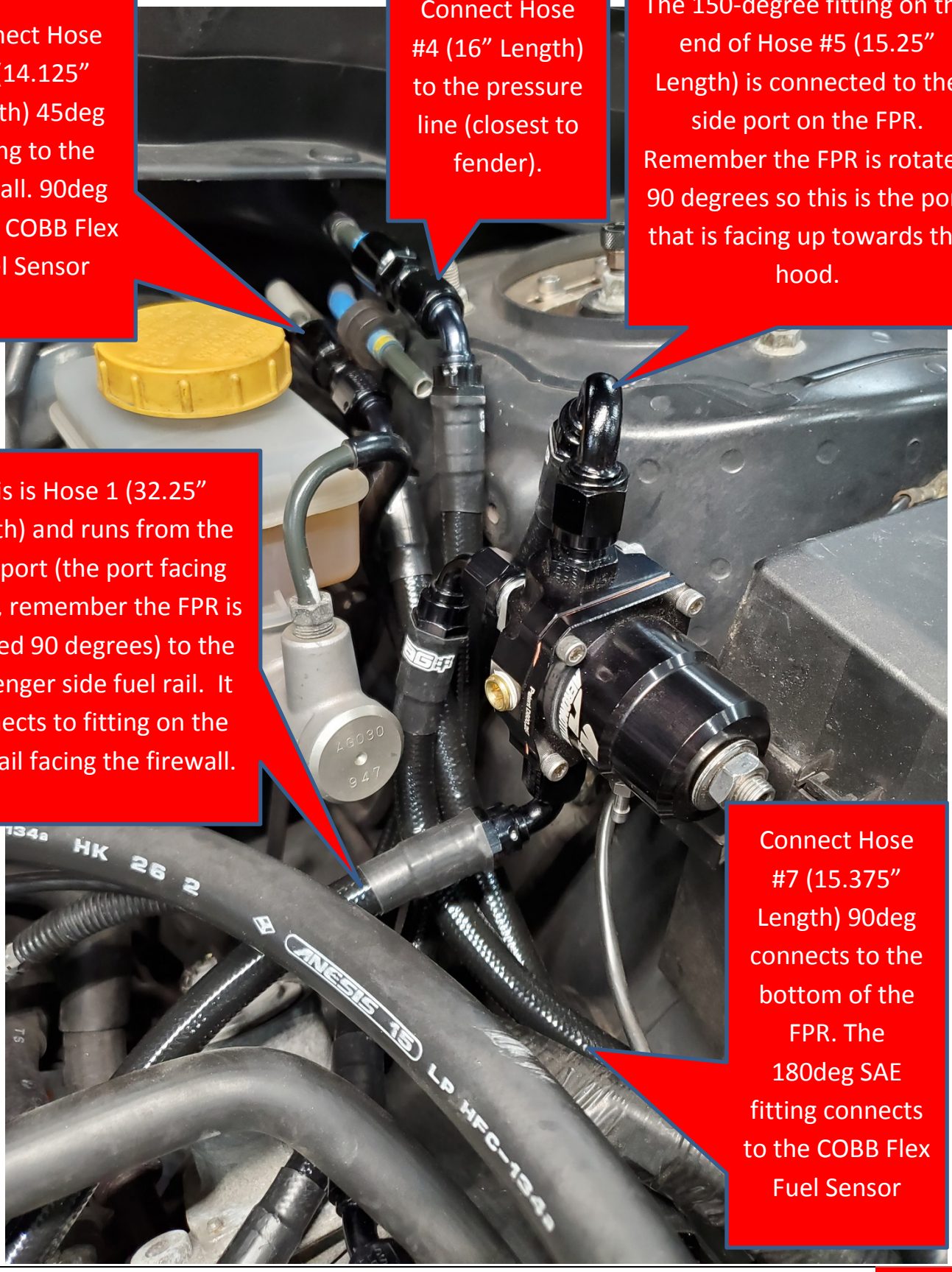


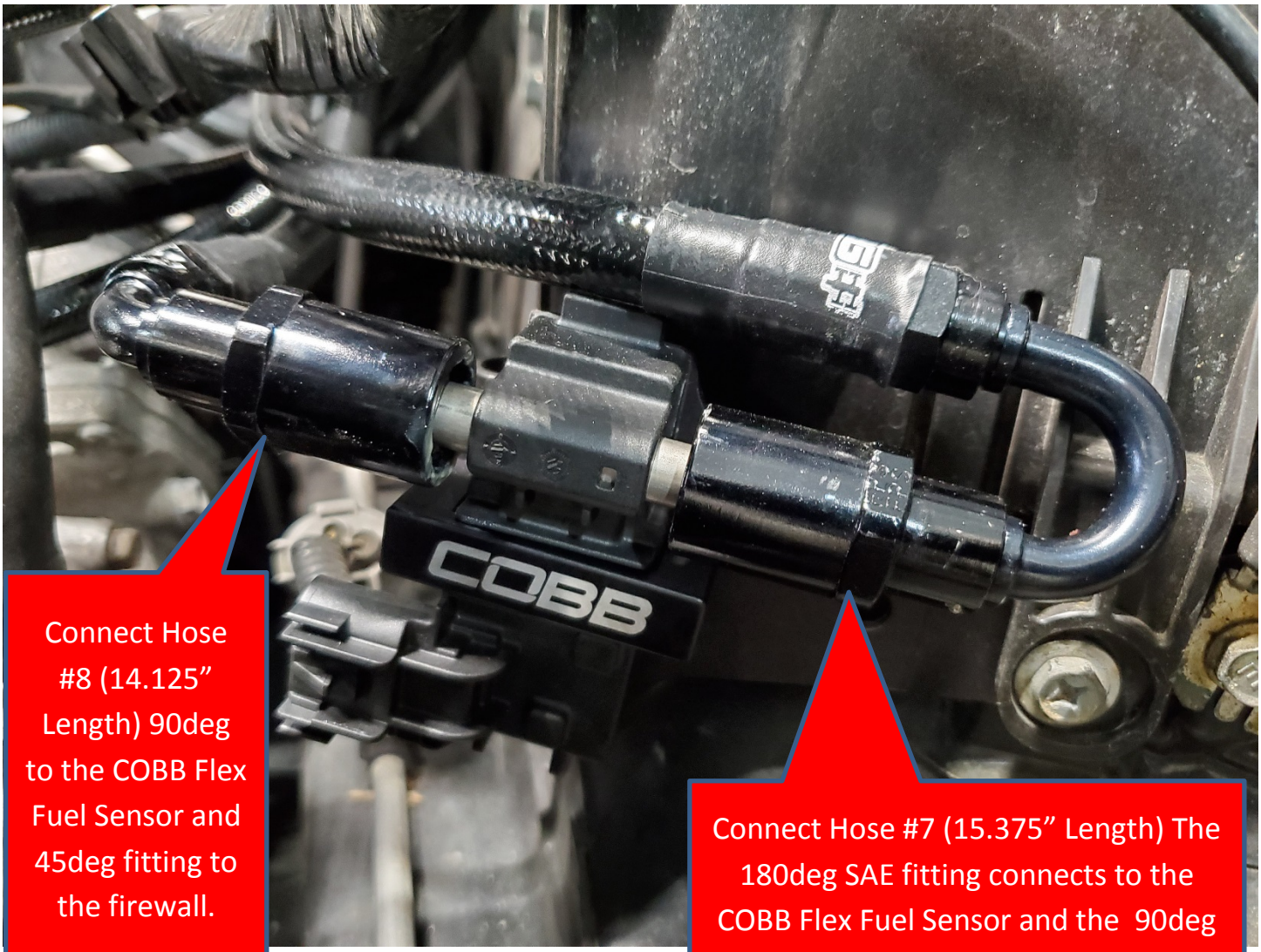
Passenger Side Hoses both have 90deg fittings like below.




Close up of the Y-Fitting.

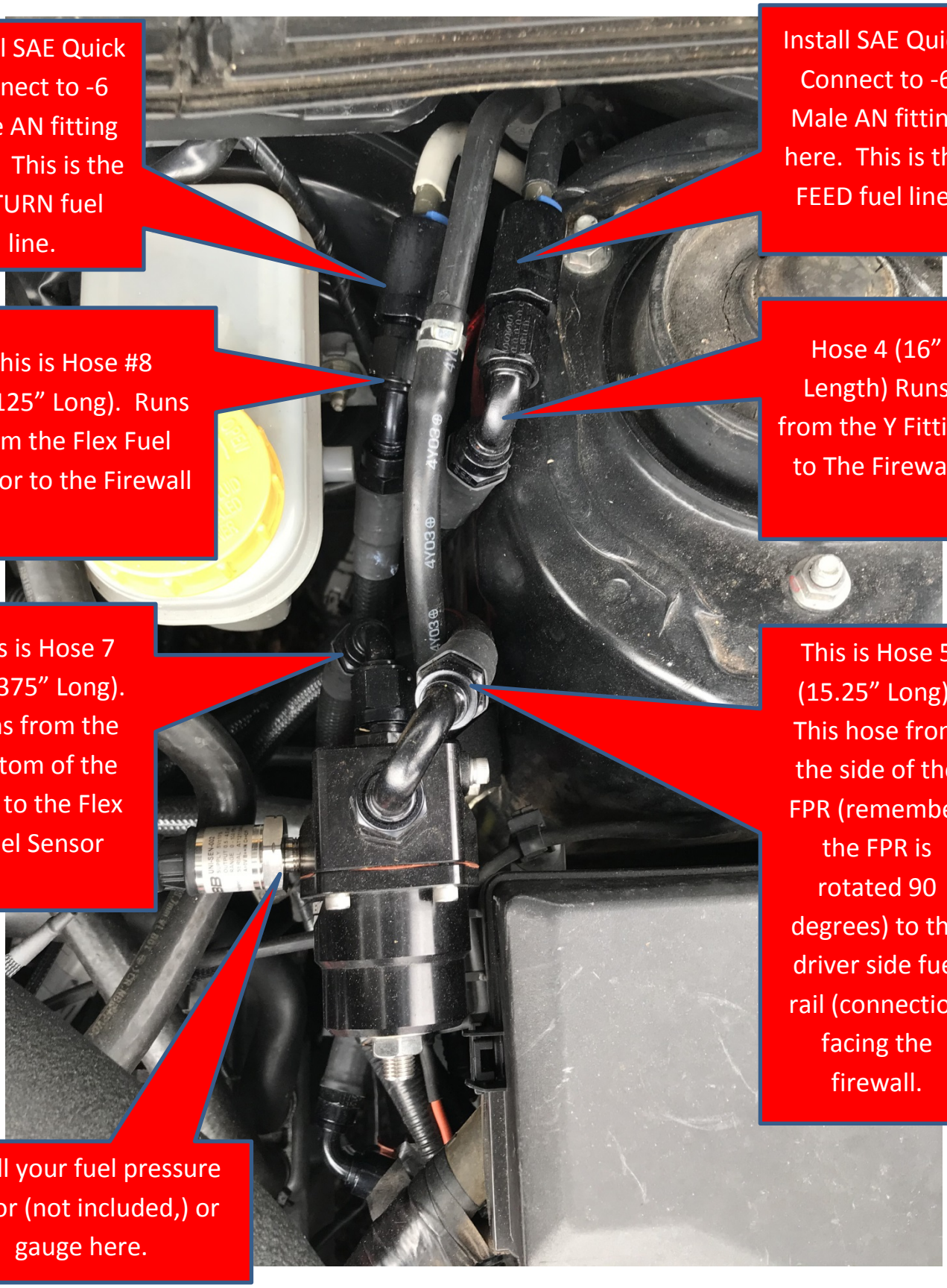

Cobb Fuel Pressure Sensor installed in FPR
This is Hose #1 (32.25” Long). This hose runs from the side of Aeromotive FPR to the back of the passenger side fuel rail.
Connect your Aeromotive FPR to the line going to your OEM bov using the supplied 3/16” vacuum tee and 2’ 1/8” vacuum line. Trim to fit as required.
Use the M6 x 16mm Hex Bolts to install the FPR Bracket.

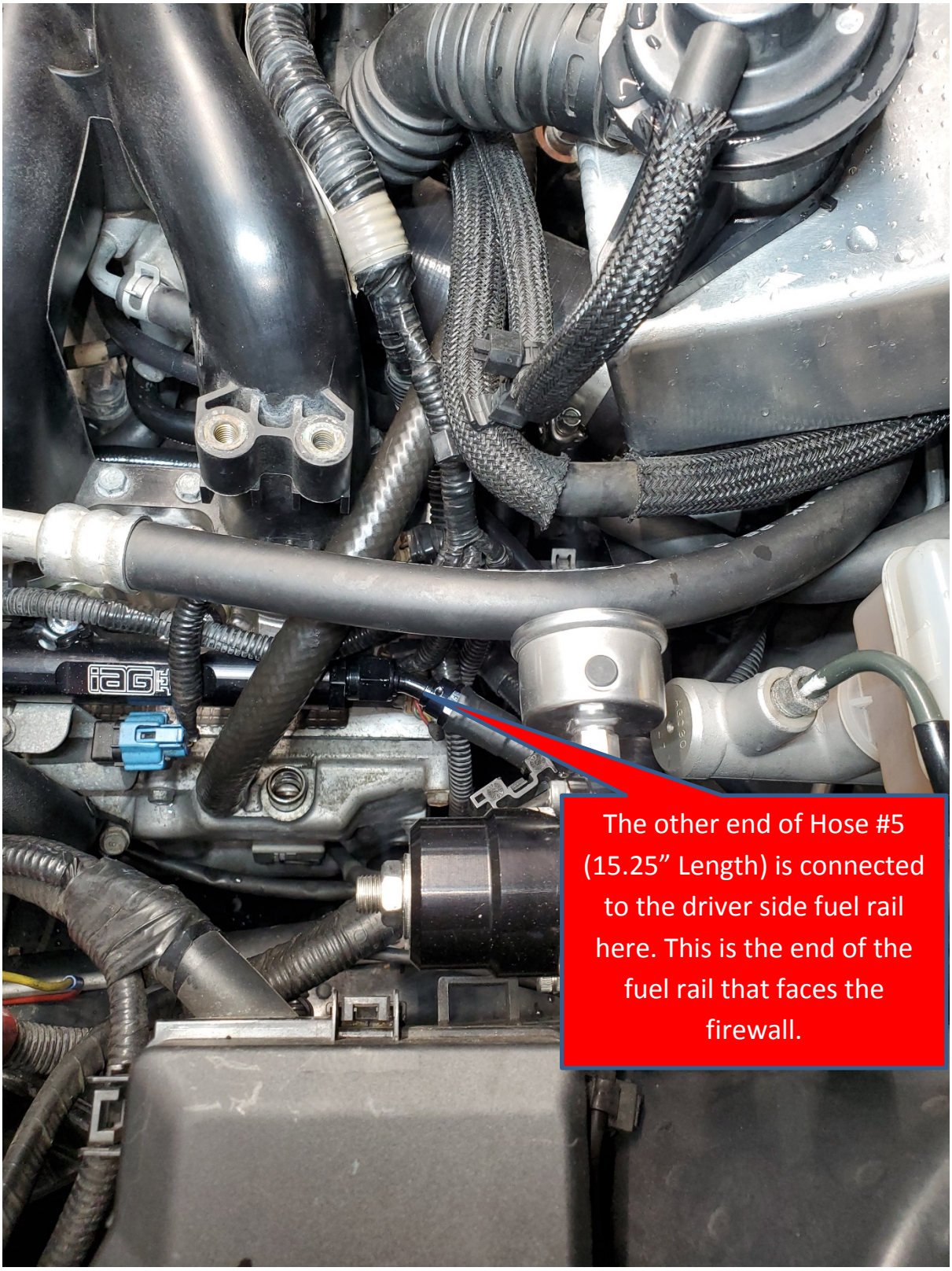

Connect Hose #8 (14.125” Length) 45deg fitting to the firewall. 90deg to the COBB Flex Fuel Sensor
Connect Hose #4 (16” Length) to the pressure line (closest to fender).
The 150-degree fitting on the end of Hose #5 (15.25” Length) is connected to the side port on the FPR. Remember the FPR is rotated 90 degrees so this is the port that is facing up towards the hood.
This is Hose 1 (32.25” Length) and runs from the side port (the port facing down, remember the FPR is rotated 90 degrees) to the passenger side fuel rail. It connects to fitting on the fuel rail facing the firewall.
Connect Hose #7 (15.375” Length) 90deg connects to the bottom of the FPR. The 180deg SAE fitting connects to the COBB Flex Fuel Sensor



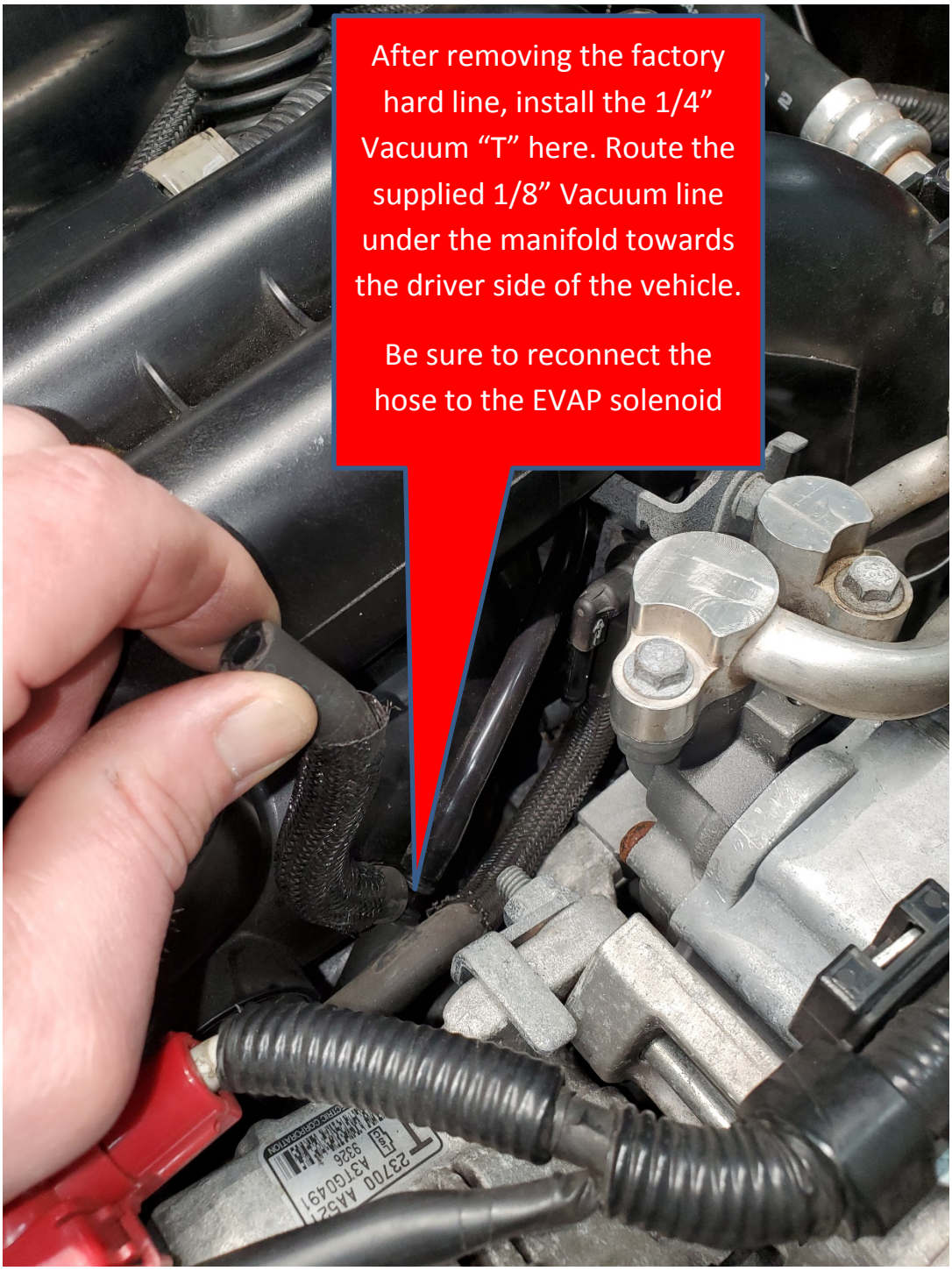
Connect Hose #8 (14.125” Length) 90deg to the COBB Flex Fuel Sensor and 45deg fitting to the firewall.

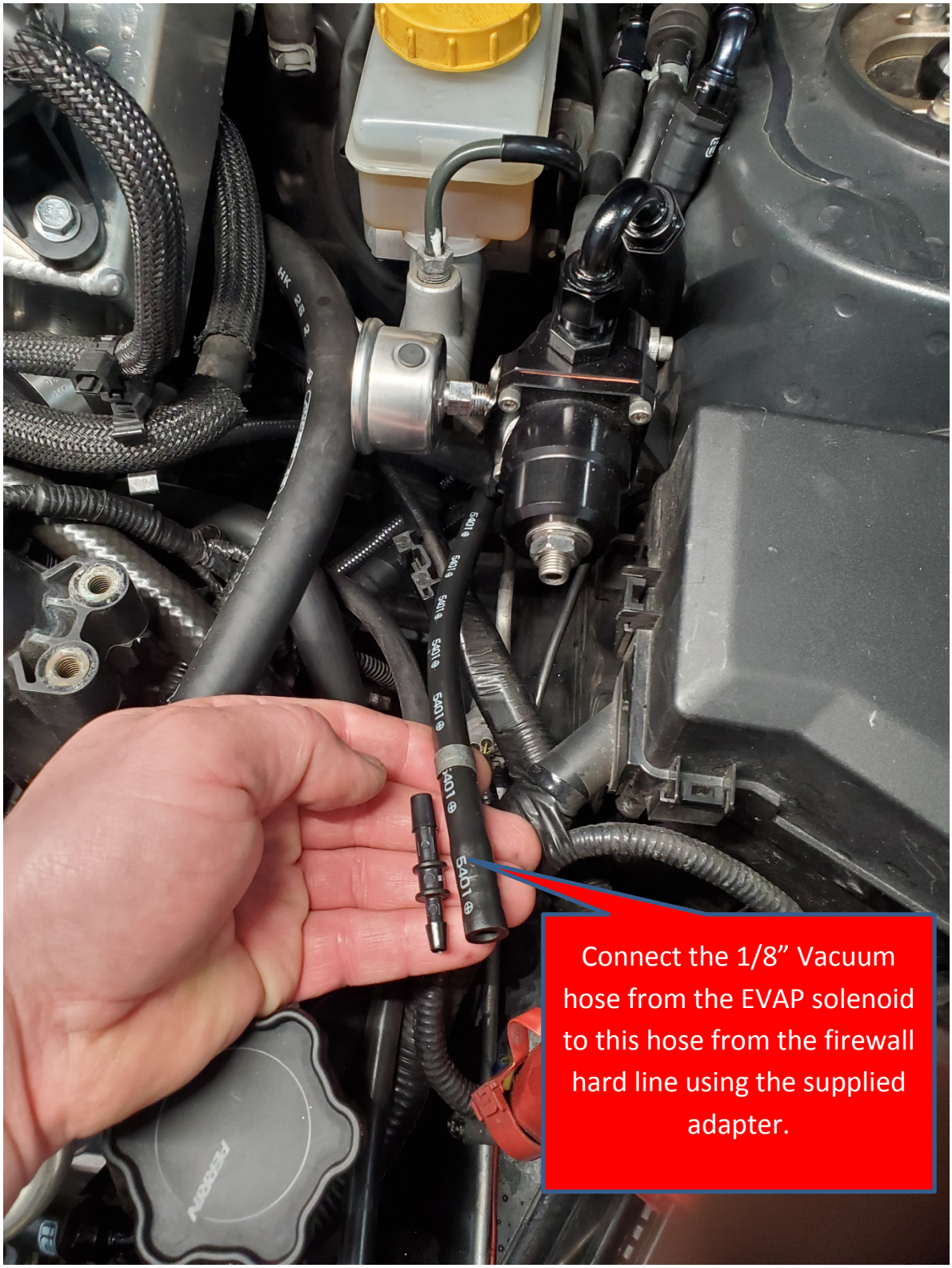
Connect Hose #7 (15.375” Length) The 180deg SAE fitting connects to the COBB Flex Fuel Sensor and the 90deg connects to the bottom of the FPR.


Install SAE Quick Connect to -6 Male AN fitting here. This is the RETURN fuel line.
Install SAE Quick Connect to -6 Male AN fitting here. This is the FEED fuel line.
This is Hose #8 (14.125” Long). Runs from the Flex Fuel Sensor to the Firewall
Hose 4 (16” Length) Runs from the Y Fitting to The Firewall
This is Hose 7 (15.375” Long). Runs from the bottom of the FPR to the Flex Fuel Sensor
This is Hose 5 (15.25” Long). This hose from the side of the FPR (remember the FPR is rotated 90 degrees) to the driver side fuel rail (connection facing the firewall.
Install your fuel pressure sensor (not included,) or gauge here.

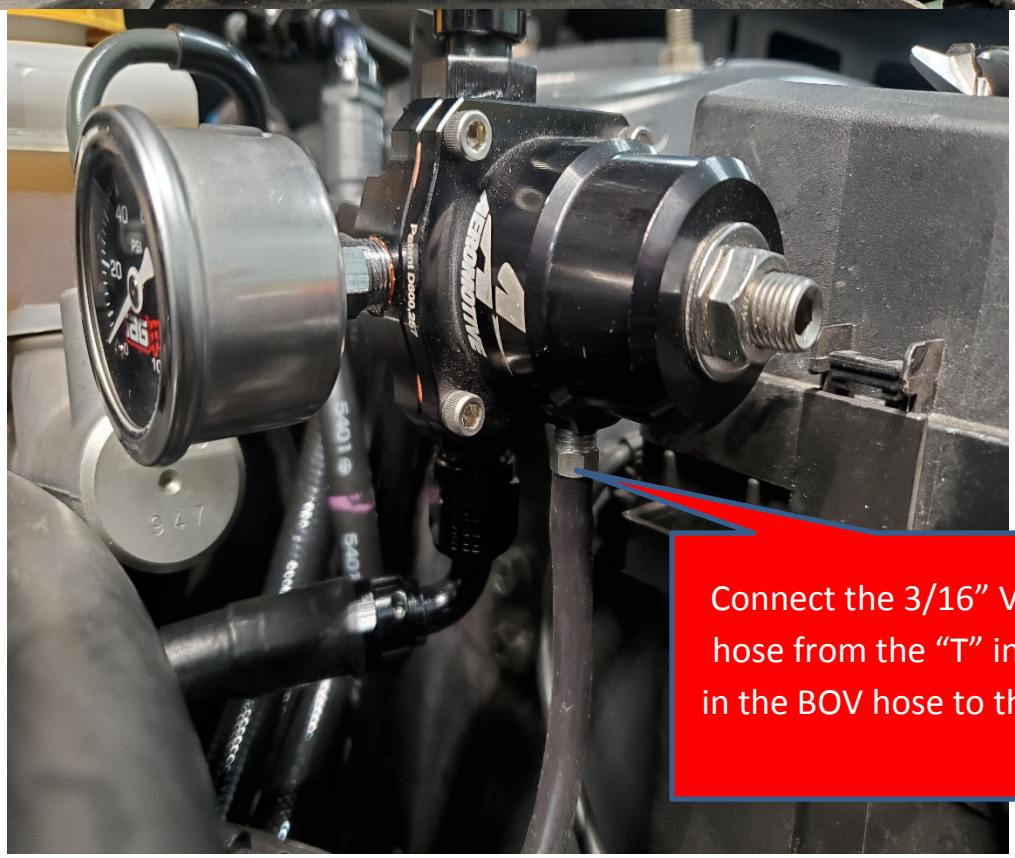

The other end of Hose #5 (15.25” Length) is connected to the driver side fuel rail here. This is the end of the fuel rail that faces the firewall.

Reinstall the factory intake manifold according to the service manual.




Connect the 1/8” Vacuum hose from the EVAP solenoid to this hose from the firewall hard line using the supplied adapter.


Cut the factory vacuum hose to the BOV and install the supplied 3/16” “T”


Connect the 3/16” Vacuum hose from the “T” installed in the BOV hose to this port.

- Re-insert the fuel pump fuse. Cycle the key on and off 3-4 times without starting the vehicle to build fuel pressure.
- Check all connections for leaks.
- Set your base fuel pressure to your tuner's recommended base pressure with the ignition key on and the vacuum line to the FPR disconnected.
- You are now finished installing the IAG PTFE Fuel Line kit.