



IAG PTFE Flex Fuel Line Kit for 2006-07 Subaru WRX & 2006-07 STI

Part# - IAG-AFD-2222

Thank you for choosing the IAG PTFE Fuel 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). If you have any questions please email support@iagperformance.com or call 410-840-3555 for assistance.

Parts List		
Part Name	Quantity	Notes
Hose 1	1	34.75" Long with 90deg x 90deg Female -6 AN Fittings
Hose 2	1	19.5" Long with 0deg x 90deg Female -6 AN Fittings
Hose 3	1	14.25" Long with 0deg x 90deg Female -6 AN Fittings
Hose 4	1	20.25" Long with 0deg x 90deg Female -6 AN Fittings
Hose 5	1	15.75" Long with 0deg x 150deg Female -6 AN Fittings
Hose 6	0	Not Included / Only Used For Non Flex Fuel PTFE Lines
Hose 7	1	8.5" Long with 0deg x 30deg SAE Fittings
Hose 8	1	7.375" Long with 90deg x 150deg Female -6 AN Fittings
FPR Bracket	1	Long Powder coated Bracket with 4 Holes
COBB Flex Fuel Sensor Relocation Bracket	1	Attaches the COBB Flex Fuel Sensor / Bracket to the strut tower
-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 Y-Fitting, 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 3/8 Quick Connect to -6 AN Male	2	These adapt the OEM Hard Fuel Lines to -6 AN Fittings
SAE 5/16 Quick Disconnect to -6	1	Adapts to COBB Flex Fuel Sensor
14mm Hose Separator	1	This makes things nice and clean.
M6 x 16mm Hex Head Screws	4	These are used for the COBB Flex Fuel Relocation Bracket
M6x1.00 Flange Nut	2	These are used for the COBB Flex Fuel Relocation Bracket
M6 x 12 Hex Flange Bolt	2	Used mount FPR Bracket to the strut tower
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	2	Used to cap OEM fuel pressure reference port, use the size which fits best.
4" Zip Tie	2	Used for vacuum cap.



This is all of 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 (34.75" Length) has two 90deg Fittings.



Hose 2 (19.5" Length) has a 0deg and 90deg fittings.



Hose 3 (14.25" Length) has a 0deg and 90deg fittings.



Hose 4 (20.25" Length) has 90deg and 0deg fittings.



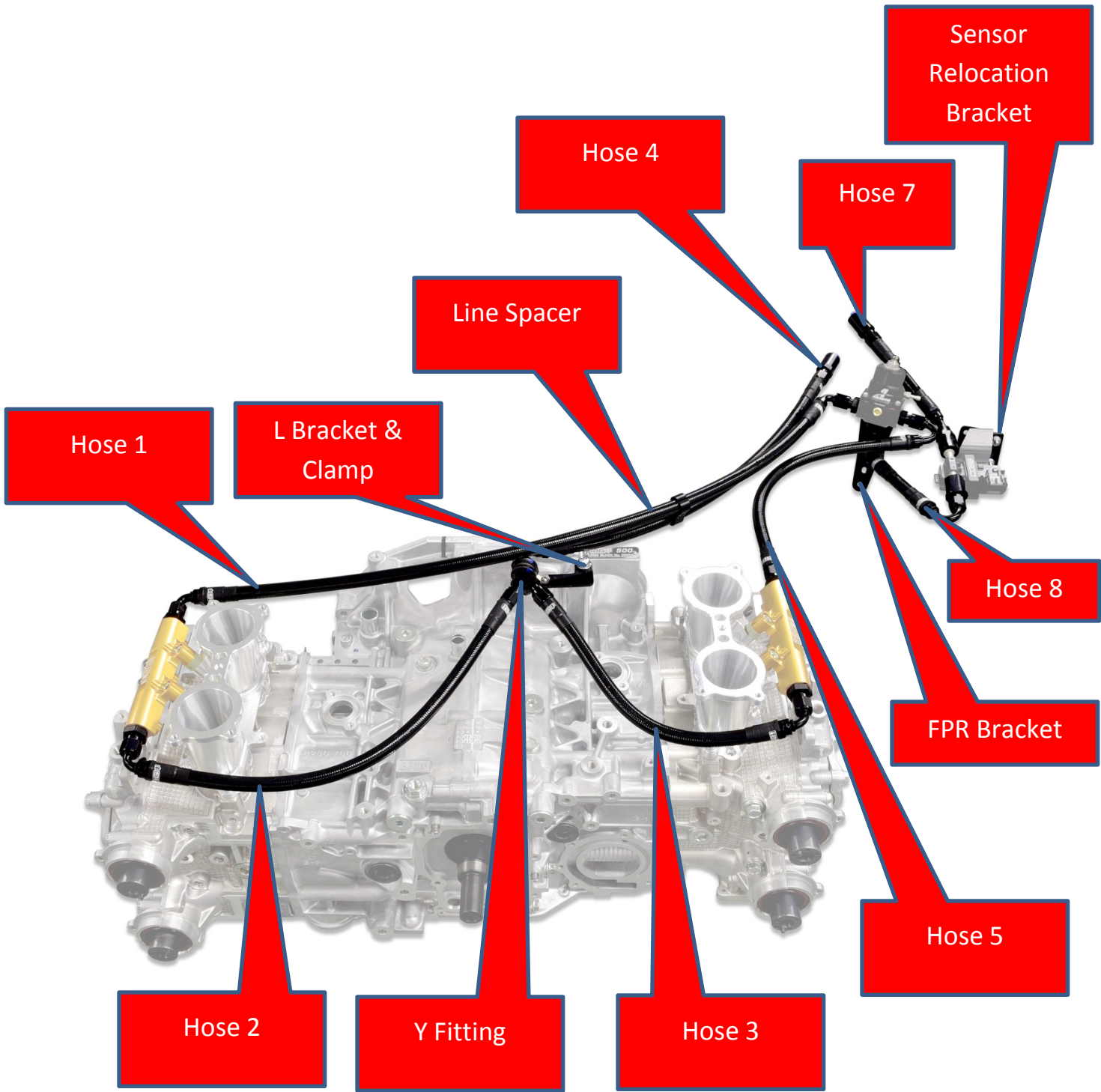
Hose 5 (15.75" Length) has 0deg and 150deg fittings.

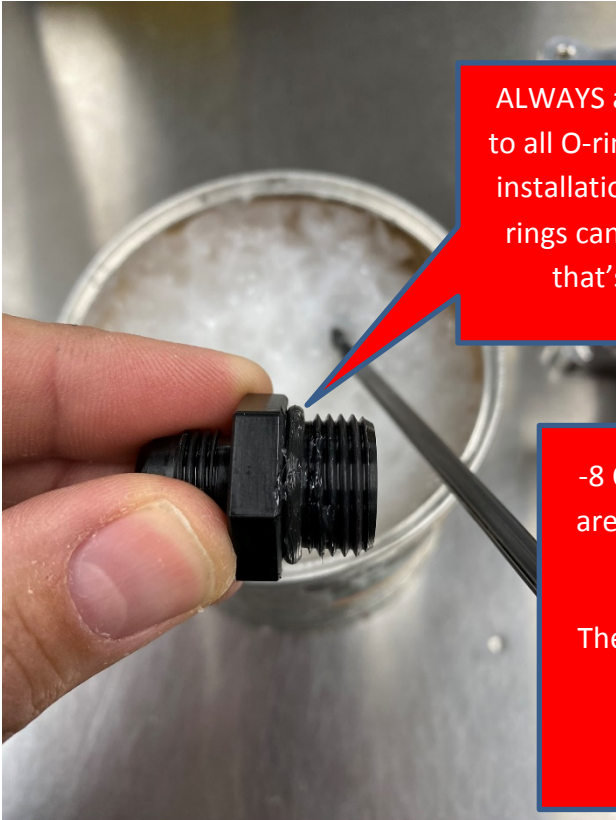


Hose 7 (8.5" Length) has two 0deg and 30deg SAE fitting.



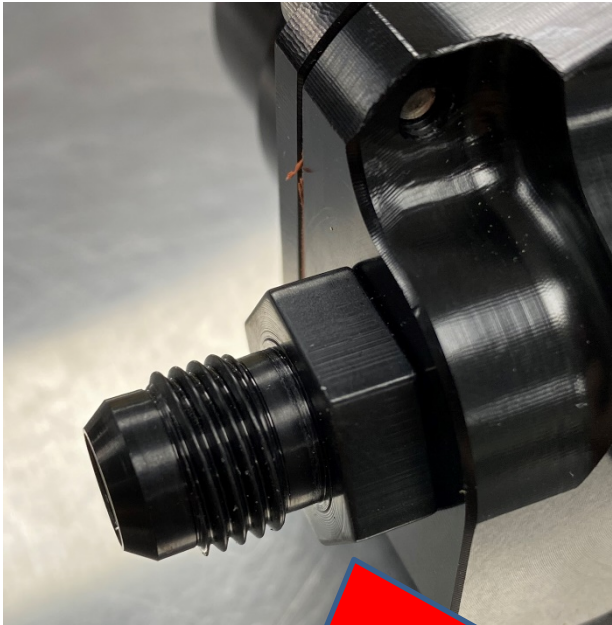
Hose 8 (7.375" Length) has two 90deg and 150deg fittings.





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

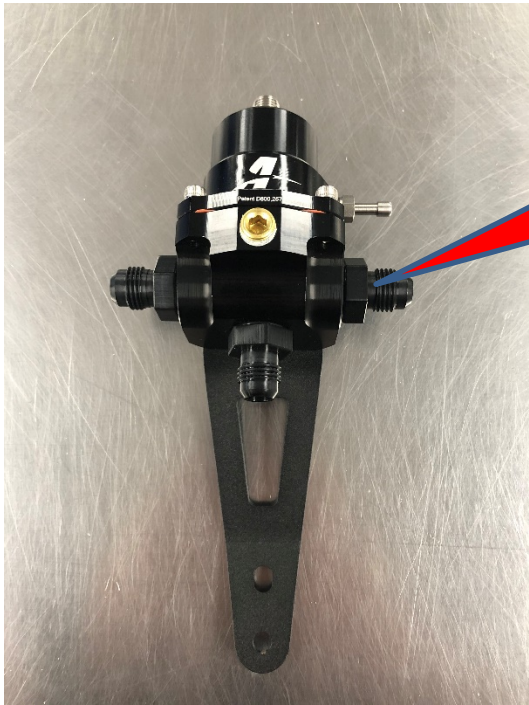
-8 ORB Fittings (larger) are installed in the fuel rails.
The -6 ORB Fittings are installed in the Aeromotive FPR.



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. Install your Fuel Pressure gauge or sensor (not included) 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.

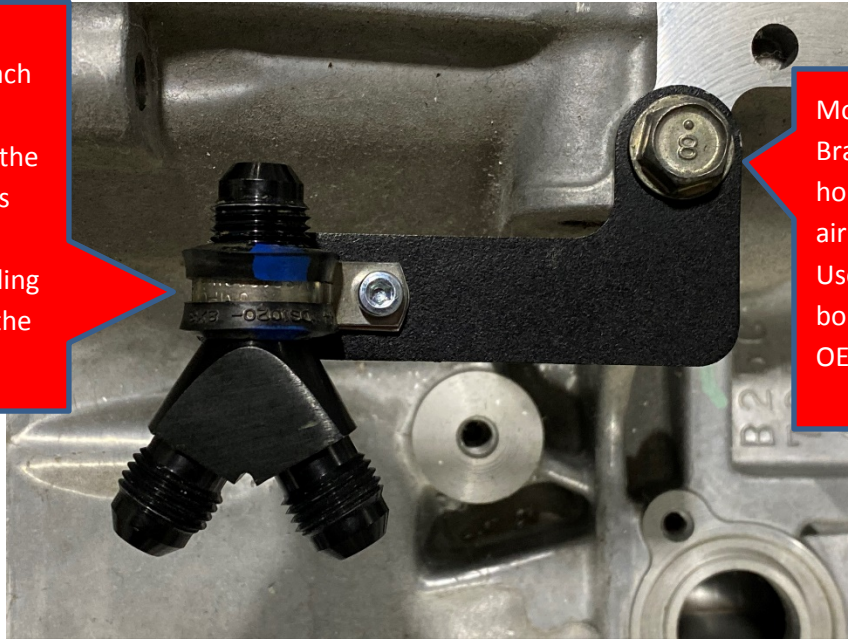
View to show the orientation of the FPR Bracket installed on the Aeromotive FPR.





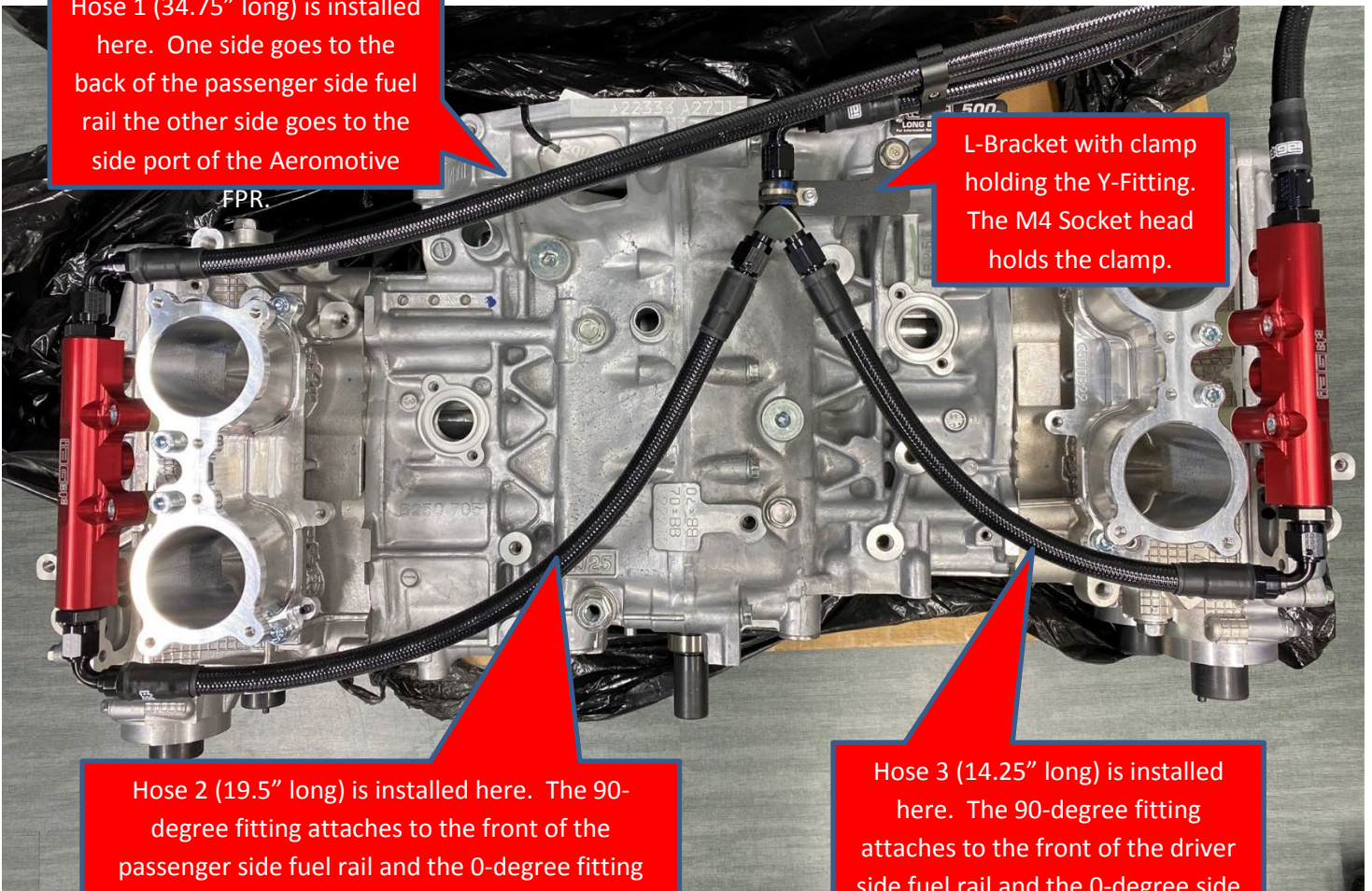
- Pull the fuel pump fuse and crank the vehicle until it stalls. Then, try to start again. This will relieve the majority of fuel pressure.
- Remove the factory fuel hoses and regulator assembly, per the OEM service manual.
- Use the supplied vacuum cap, secured with the zip tie, to block off the OEM 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. Aftermarket TGV housings are required for this kit.
- Remove the factory fuel lines per the OEM service manual

Insert the long end of the Y-Fitting into the clamp and attach it to the L-Bracket using the included M4 Bolt. Make sure the clamp is pushed as far towards the middle of the fitting to prevent the -6 Hose from binding on the clamp when installing the hoses.



Mount the L-Bracket in the bolt hole used by the air pump bracket. Use the supplied bolt or reuse the OEM Bolt

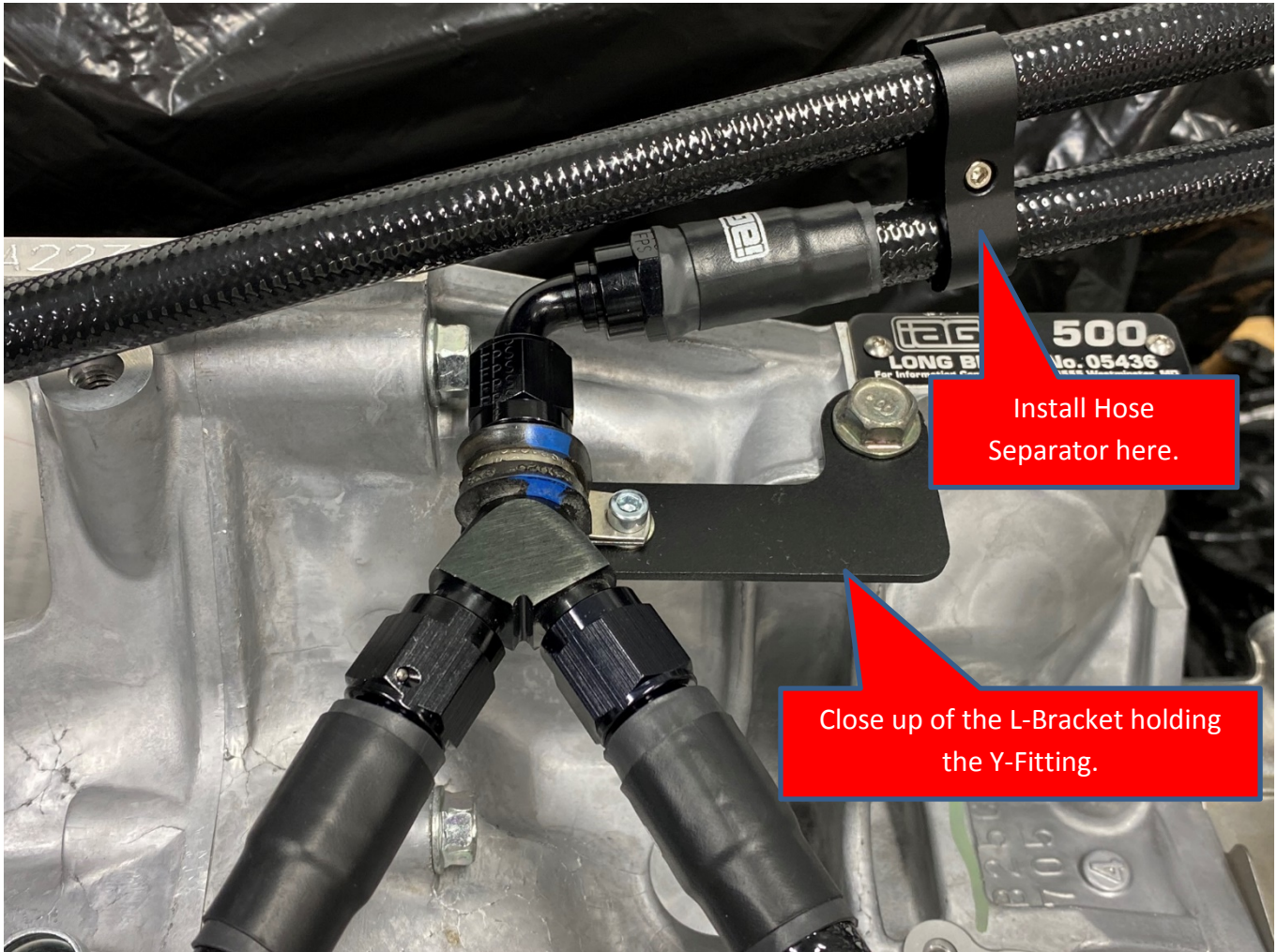
Hose 1 (34.75" long) is installed here. One side goes to the back of the passenger side fuel rail the other side goes to the side port of the Aeromotive



L-Bracket with clamp holding the Y-Fitting. The M4 Socket head holds the clamp.

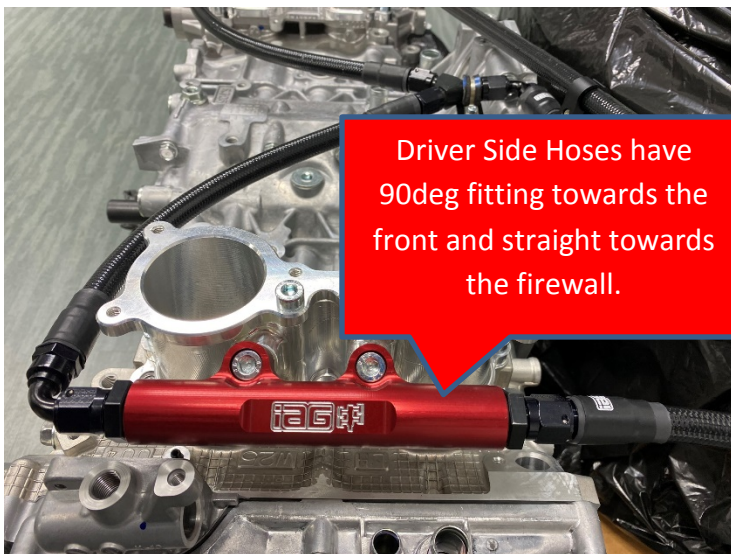
Hose 2 (19.5" long) is installed here. The 90-degree fitting attaches to the front of the passenger side fuel rail and the 0-degree fitting attached to the Y-Fitting as shown.

Hose 3 (14.25" long) is installed here. The 90-degree fitting attaches to the front of the driver side fuel rail and the 0-degree side attaches to the Y-Fitting.

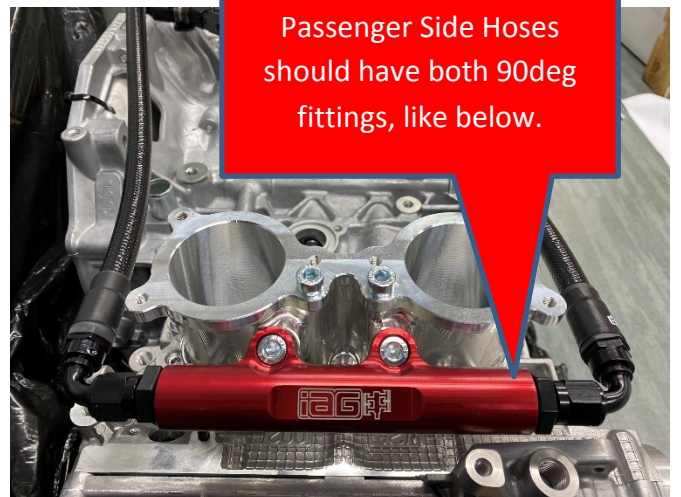


Install Hose Separator here.

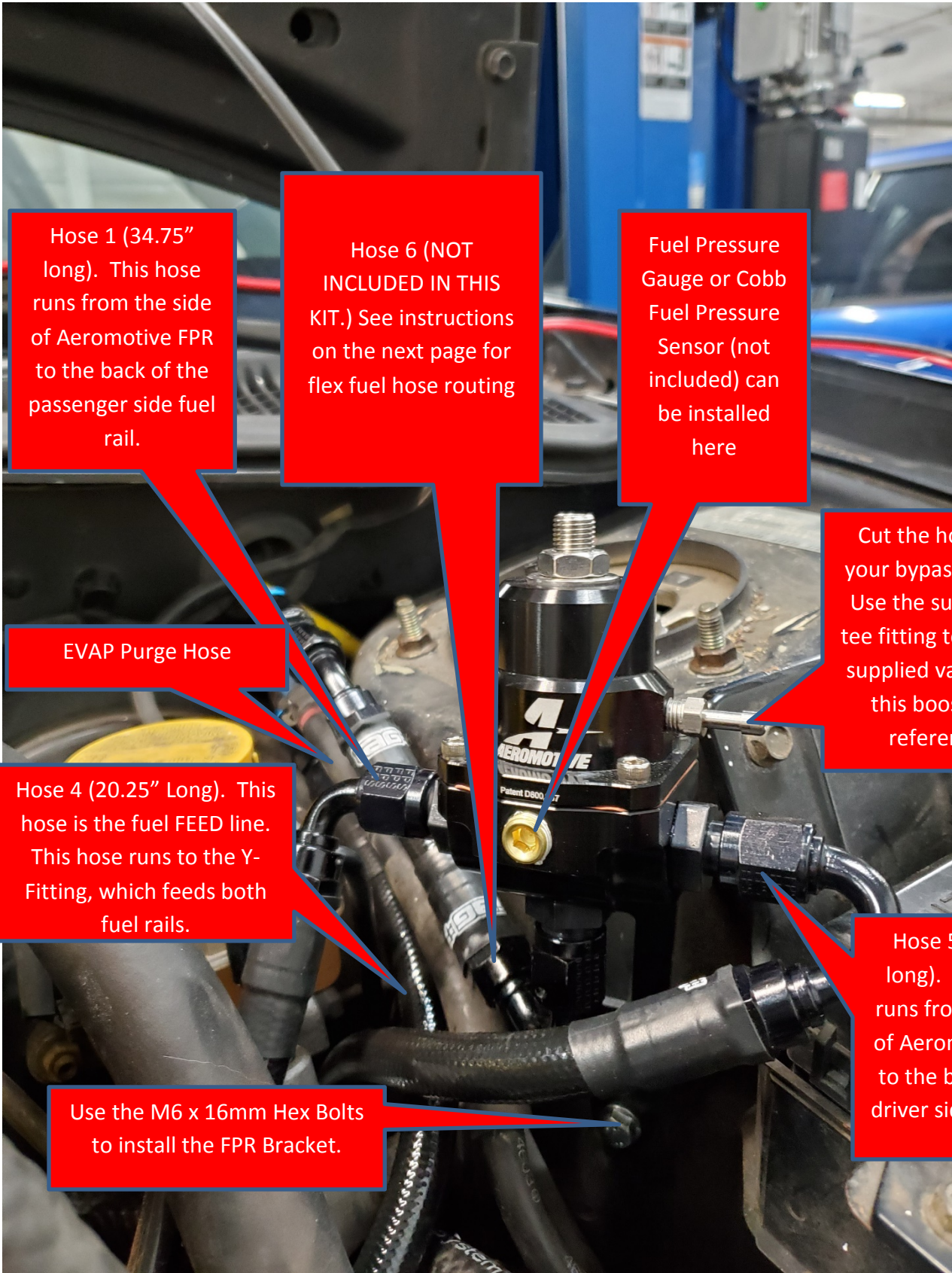
Close up of the L-Bracket holding the Y-Fitting.



Driver Side Hoses have 90deg fitting towards the front and straight towards the firewall.



Passenger Side Hoses should have both 90deg fittings, like below.



Hose 1 (34.75" long). This hose runs from the side of Aeromotive FPR to the back of the passenger side fuel rail.

Hose 6 (NOT INCLUDED IN THIS KIT.) See instructions on the next page for flex fuel hose routing

Fuel Pressure Gauge or Cobb Fuel Pressure Sensor (not included) can be installed here

EVAP Purge Hose

Cut the hose going to your bypass valve (BOV) Use the supplied 3/16" tee fitting to connect the supplied vacuum line to this boost/vacuum reference port.

Hose 4 (20.25" Long). This hose is the fuel FEED line. This hose runs to the Y-Fitting, which feeds both fuel rails.

Hose 5 (15.75" long). This hose runs from the side of Aeromotive FPR to the back of the driver side fuel rail.

Use the M6 x 16mm Hex Bolts to install the FPR Bracket.

Flex Fuel Sensor Hose Routing

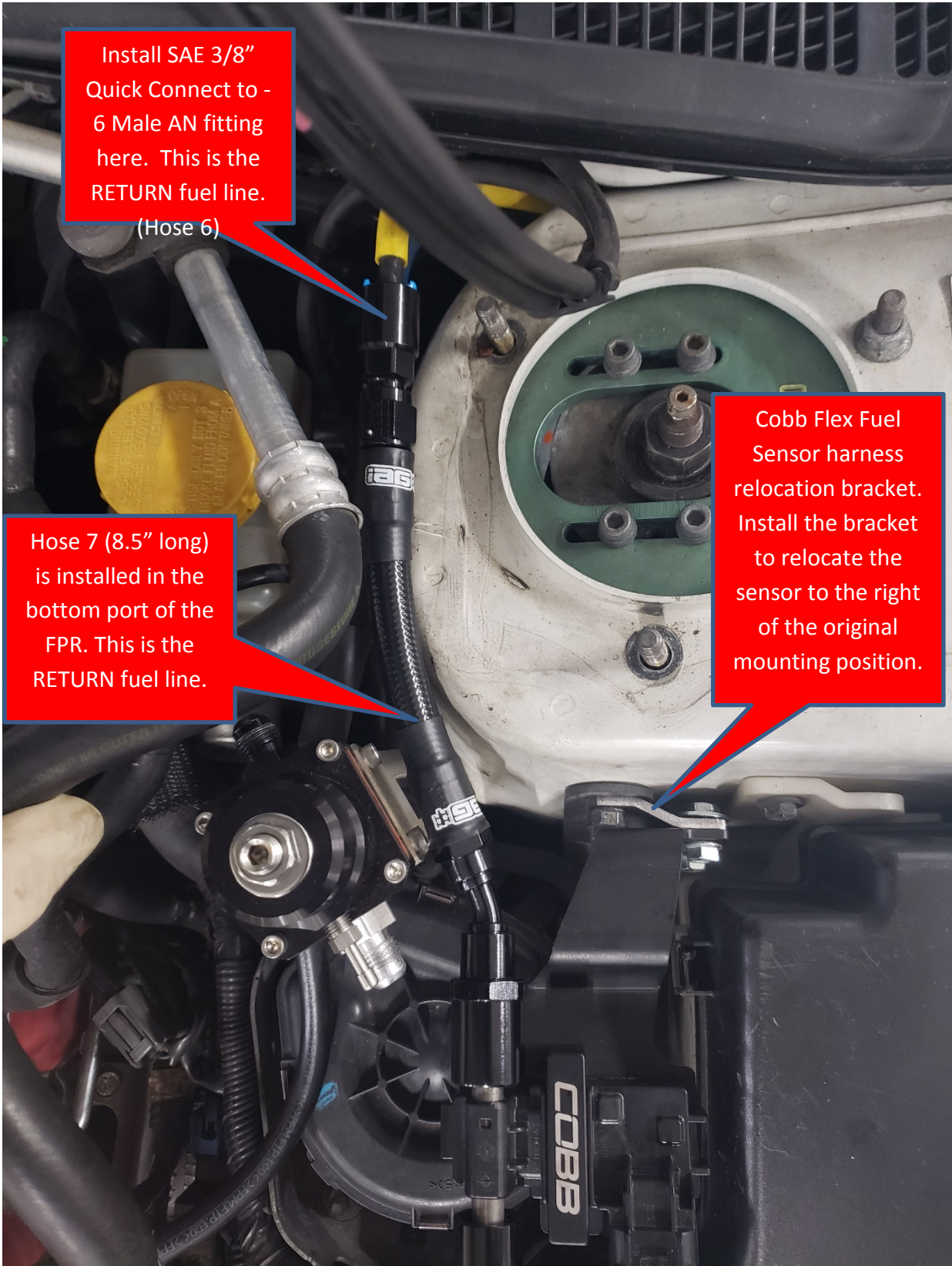
Hose 7 (8.5" long) is installed between the flex fuel sensor and the firewall hard line. This is the RETURN fuel line.

COBB Flex Fuel Sensor harness relocation bracket. Install the bracket to relocate the sensor to the right of the original mounting position.

Hose 8 (7.375" long) is installed in the bottom port of the FPR. This connects to the Cobb Flex Fuel Sensor

SAE 5/16" Quick Connect to -6AN hose adapter.



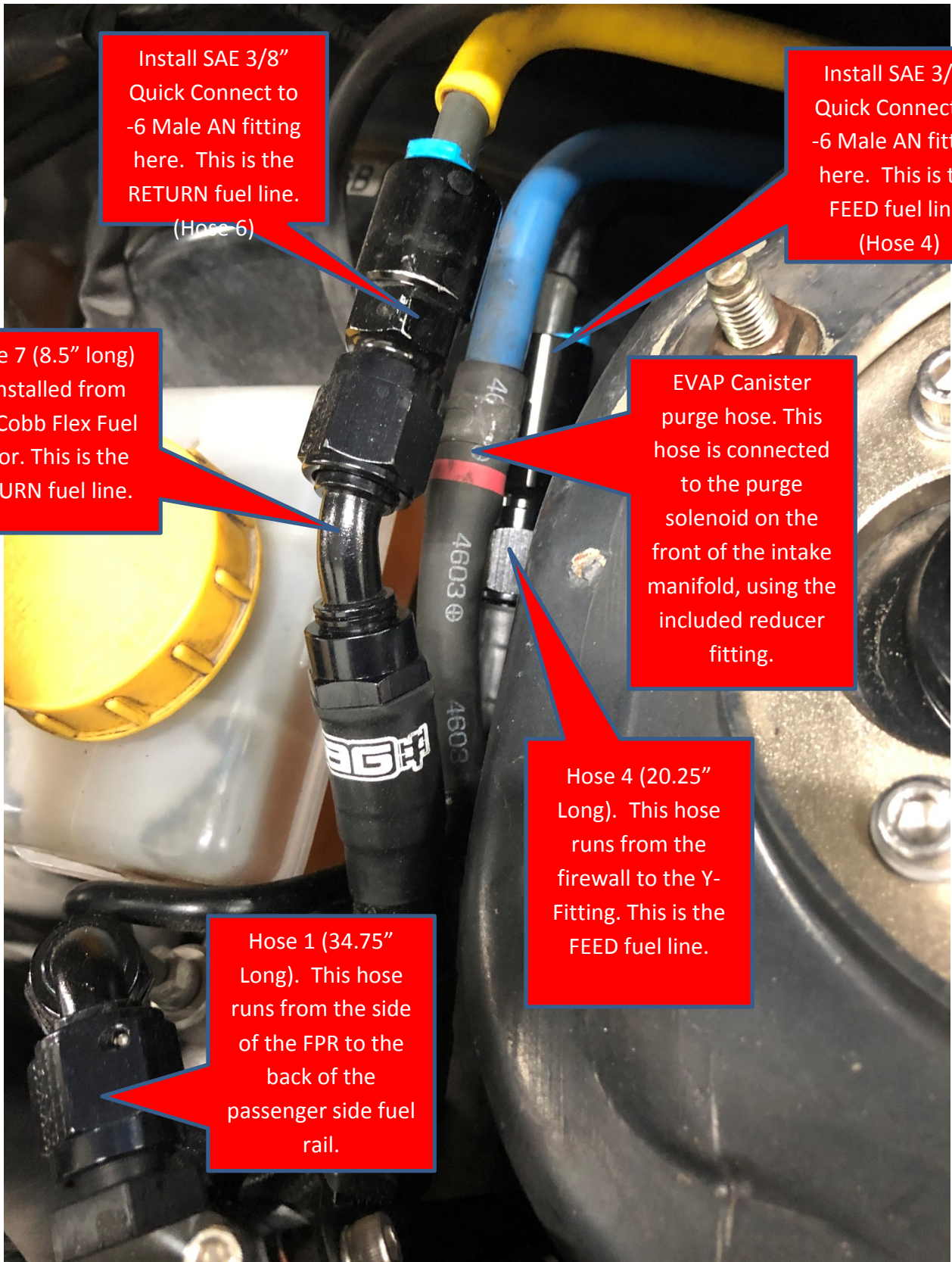


Install SAE 3/8" Quick Connect to -6 Male AN fitting here. This is the RETURN fuel line.

(Hose 6)

Hose 7 (8.5" long) is installed in the bottom port of the FPR. This is the RETURN fuel line.

Cobb Flex Fuel Sensor harness relocation bracket. Install the bracket to relocate the sensor to the right of the original mounting position.



Install SAE 3/8" Quick Connect to -6 Male AN fitting here. This is the RETURN fuel line.
(Hose 6)

Install SAE 3/8" Quick Connect to -6 Male AN fitting here. This is the FEED fuel line.
(Hose 4)

Hose 7 (8.5" long) is installed from the Cobb Flex Fuel Sesor. This is the RETURN fuel line.

EVAP Canister purge hose. This hose is connected to the purge solenoid on the front of the intake manifold, using the included reducer fitting.

Hose 4 (20.25" Long). This hose runs from the firewall to the Y-Fitting. This is the FEED fuel line.

Hose 1 (34.75" Long). This hose runs from the side of the FPR to the back of the passenger side fuel rail.



At the purge solenoid, disconnect the hose which ran to the EVAP hard line under the intake manifold and replace the short length of hose with the supplied 2', 1/8" vacuum line, which runs to the reducer fitting to connect to the EVAP line at the firewall.



Use the supplied $\frac{1}{4}$ " to $\frac{3}{16}$ " reducer to connect the supplied $\frac{1}{4}$ " vacuum hose from the EVAP purge solenoid to the firewall hard line



- 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.