



# Important Information

Racing Solutions, LLC (RSI) recommends that any fuel system components be installed by an automotive professional. Installation of this system will require advanced knowledge of fuel systems and general automotive repair. When working with fuel it is required to only work in a ventilated area. Do not attempt to remove your fuel system in near open flames and please do not smoke while working with fuel. We strongly suggest the use of approved safety items including eye protection be worn.

Please be advised that fuel components are pressurized systems. Ensure that all pressure has been evacuated prior to opening the system.

# Packaging List

Please take a few moments before you start to ensure you have all of the parts listed below. If you are missing any parts you may call our sales department at 1-940-683-0078 or send us an email at [Support@Racingsolutions.com](mailto:Support@Racingsolutions.com)

Qty.

1	RSI Billet Fuel Hanger Assembly
2	Fuel pumps
1	Regulator delete button
2	Fuel pump pre-filters
2	Fuel pump pre-filter clips
1	Fuel pressure regulator
1	Fuel regulator bracket
2	AN -6 ORB fittings for fuel pressure regulator
1	RSI High Pressure Fuel Filter
1	Fuel filter clamp
1	Fuel filter clamp screw
1	RSI Fuel Rail Set with brackets
1	Vacuum tee for boost reference hose
1	3' Vacuum line hose for regulator boost reference
1	Plug in wiring harness for 2 pump setup
2	Small screws for relays
12	Cable ties
1	20" -8 fuel feed hose from tank to filter
1	96" -8 fuel feed hose from filter to passenger fuel rail
1	10" -8 fuel feed hose from passenger rail to driver's side rail
1	15" -6 fuel return hose from driver's side rail to regulator
1	113" -6 fuel return hose from regulator to fuel tank
1	-6 ORB plug

## Removal of OEM Fuel Components

Step 1: Disconnect battery ground before opening fuel system.

Step 2: Release fuel system pressure. (Refer to manufacturer specific instructions for fuel system repair.)

Step 3: Lift and support the vehicle appropriately.

Step 4: Remove both rear wheels and wheel inner liners.

Step 5: Disconnect the fill tube and vent tube from the vehicle.

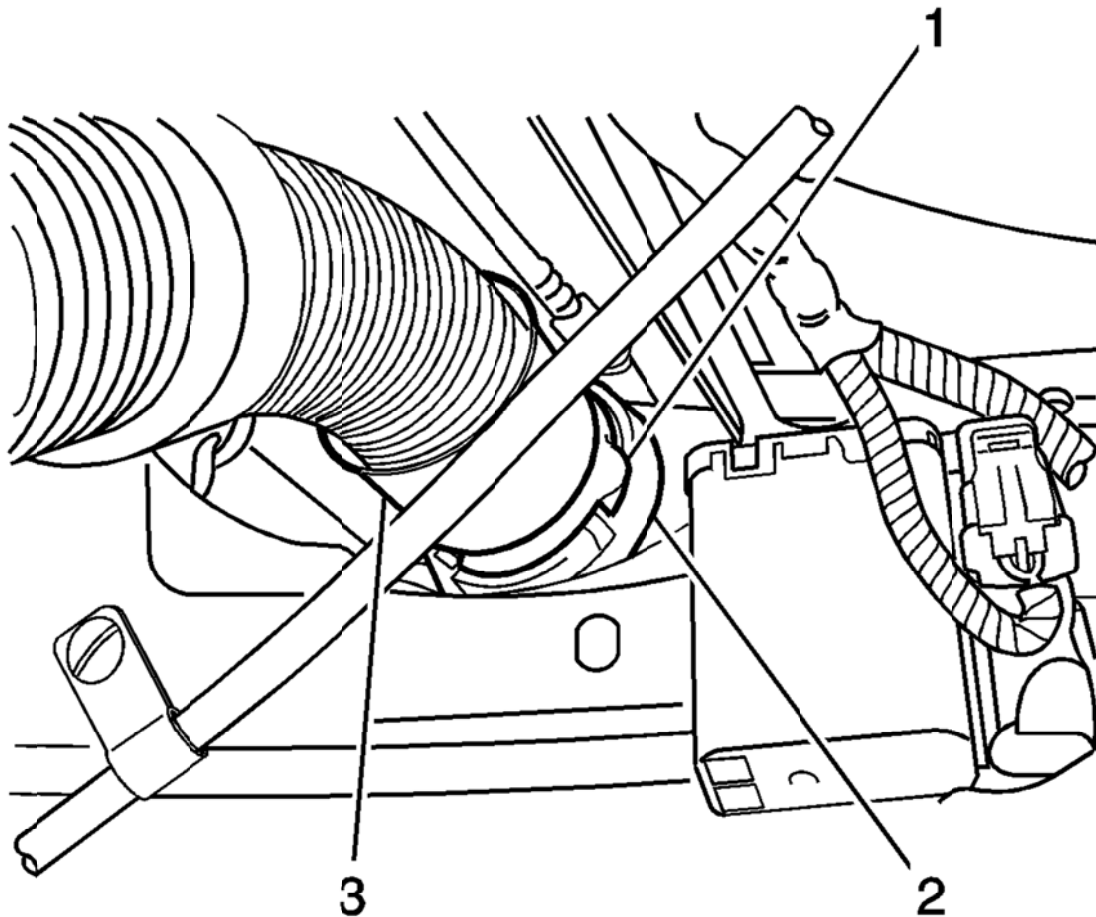


Step 6: Disconnect the OEM fuel pump wiring.

**Note:** Removal of exhaust system and some drive train parts may be necessary to gain access to the fuel crossover tube.

Step 7: Remove the fuel crossover tube retaining strap above transmission.

Step 8: Slide the safety clip away from the collar on the driver's side crossover tube to allow the collar to be rotated. #1 in image.



Step 9: Rotate the collar counter clockwise to release the crossover tube from the fuel tank. Do not rotate the crossover tube itself as it will cause damage to the internal lines. #3 in image.

Step 10: Remove the fuel tank mounting plate. Lower the tank slightly about 1 ½" to assist in removal of the crossover tube. Support the tank appropriately do not allow it to hang free.

Step 11: Carefully remove the crossover tube by pulling it away from the tank without twisting it. They are usually very tight and may take some time and patience to remove. Often times the internal tubes will come out of the tank slightly with the crossover tube. These can be separated by gently prying between the crossover tube and the internal tubes. Some penetrating oil may also help in separating the tubes.



Step 12: Disconnect the EVAP crossover pipe quick connection. This is located directly above the main crossover tube connection on the driver's side.

Step 13: Disconnect the main fuel feed line quick connect on the rear of the Driver's side tank.

Step 14: Repeat steps 8-11 on the passenger side to remove that tank as well.

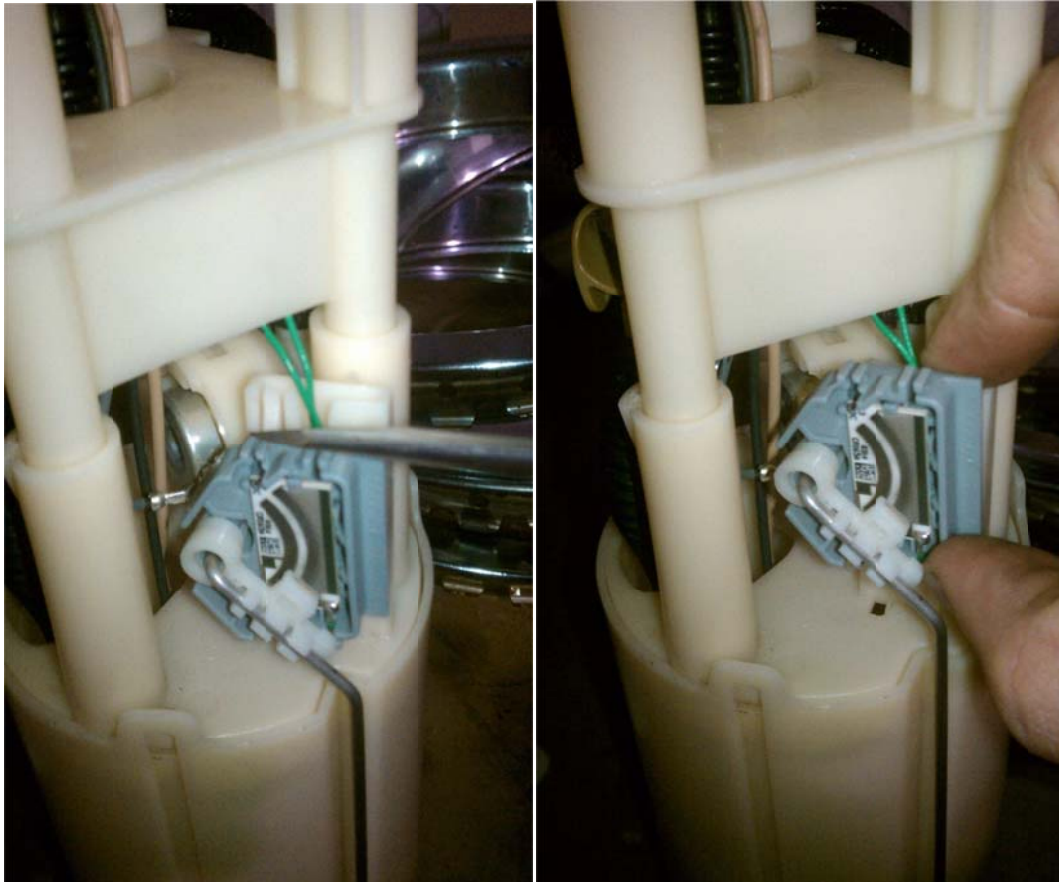
Step 15: Remove the fuel hanger lock ring on the driver's side tank. The ring is locked into place and can be released by turning it counter clockwise.



Step 16: **Before removing the hanger assembly note the position of the level sensor arm as this is very important for installation.** Also use caution when removing the hanger as not to damage the float arm or internal fuel lines.

Step 17: Raise the hanger slightly and detach the fuel line quick connector inside the tank. It may also be easier to remove the unit by carefully removing the arm from the level sensor. Remove the fuel hanger assembly.

Step 18: Remove the fuel level sensor from the driver's side hanger by pressing in the retaining clip and sliding the sensor upward. Cut the wires leading from the level sensor to the top connector in the tank. Cut them as close to the top of the hanger as possible to allow for plenty of wire as you will be installing the level sensor onto the new hanger.

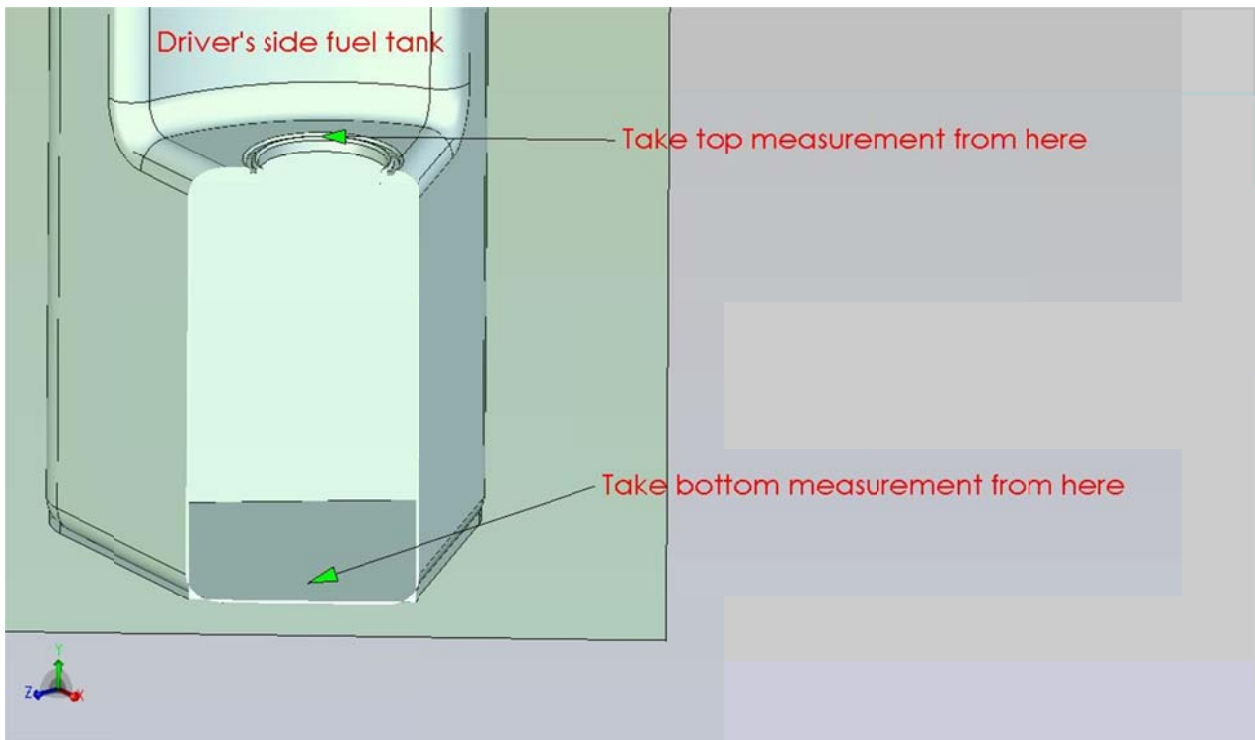




# Installing the RSI Fuel Hanger

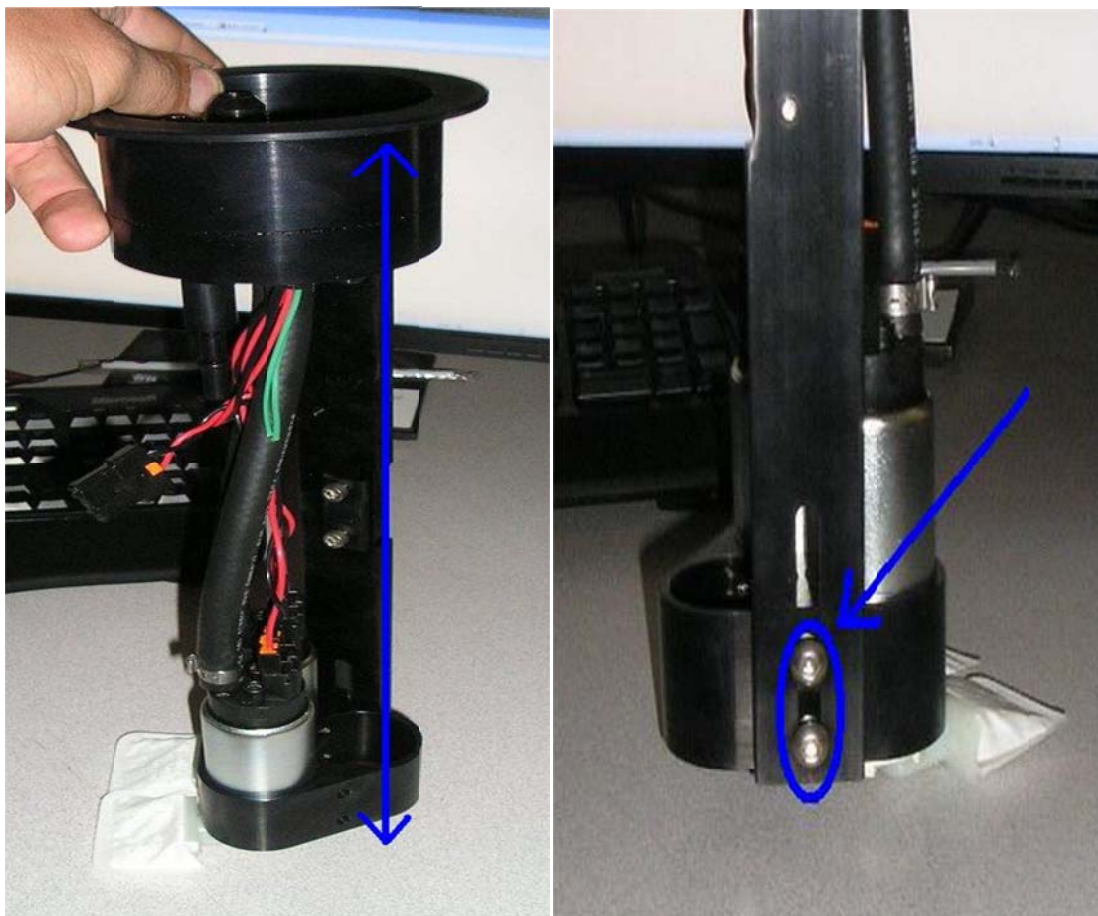
Note: Before installing the RSI fuel hanger assembly the hanger needs to be adjusted for depth to accommodate the differences between fuel tanks.

Step 1: With the OEM fuel hanger out of the tank you need to take a measurement from the bottom of the tank to the top of the pump opening.



Step 2: Temporarily install the fuel pump pre-filters on the pumps. Then take your new RSI hanger and stand it upright on a flat surface.

Step 3: Measure from the bottom of the pump pre-filters to the underside of the mounting flange on the top hat.



Step 4: Adjust the RSI pump hanger height to match the tank dimension from Step 1 by loosening the button head allen screws on the pump bracket and adjusting the position.

## Installation of the RSI Fuel Hanger and in Tank Parts

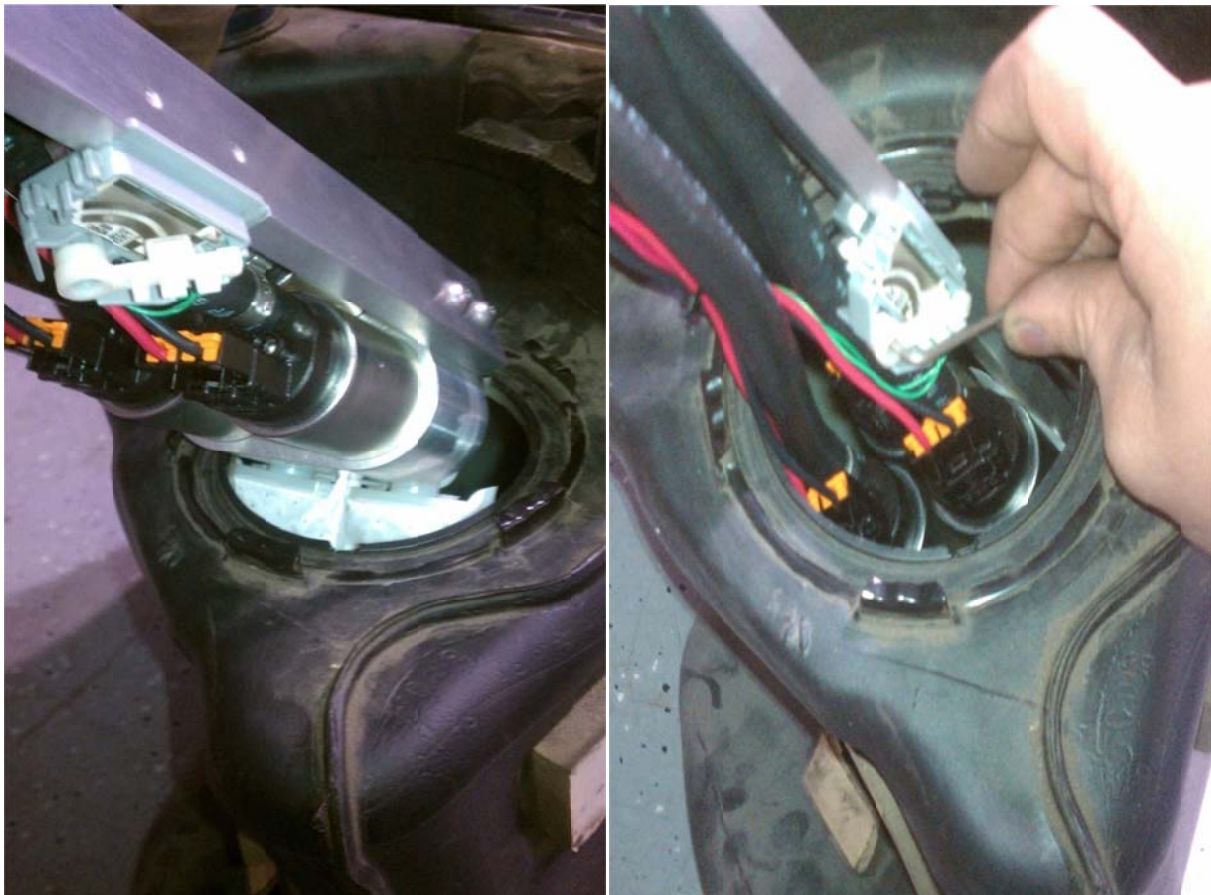
Step 1: Install the level sensor into the back strap of your new RSI hanger. Use the existing green wires and the quick crimps to attach the sending unit wires. The order of the sending unit wires does not matter.



Step 2: Install the fuel socks or pre-filters onto the pumps using the clips provided in the kit. The clips can be installed using a small socket or a pen to push the clip on tight.



Step 3: Lower the new hanger into the tank carefully. Attach the quick connect fitting to the bottom of the hanger and line up the level sensor to its original position. Tie the two internal fuel lines together using one of the supplied cable ties. Make sure the level sensor arm is free to move without contact from the internal tank lines.





**Important Note: It is critical that the sending unit float arm be positioned in the tank in such a way that it will not have contact with the tank wall or any internal lines. Failure to check and correct an issue may result in an inoperative fuel gauge and or a check engine light. Correcting a non-functioning sending unit will result in removing the fuel tank.**

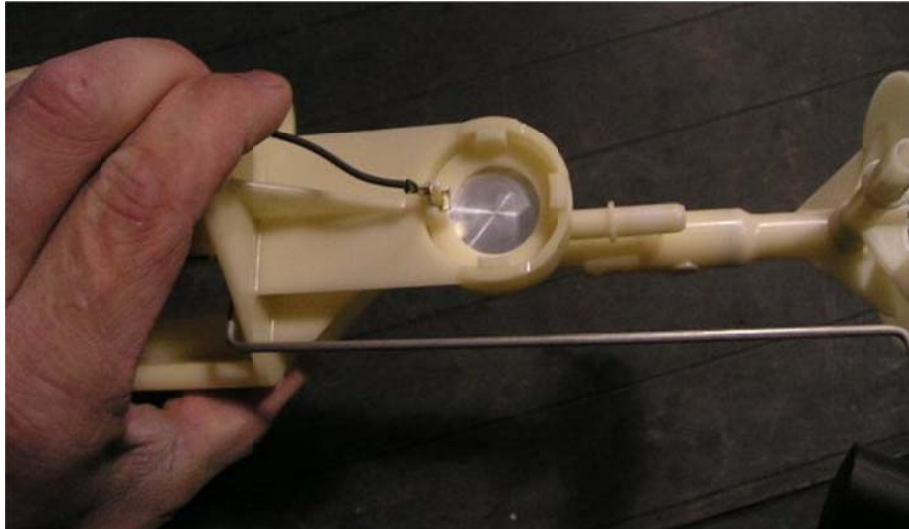
Step 4: Reinstall the fuel hanger lock ring. Install the supplied 20" -8 feed line and the 113" -6 fuel return hose onto the hanger clocked in the same general direction as the OEM fuel feed hose.



Step 5: Plug in the electrical connection and lift the tank back into the car carefully guiding the lines up the back of the tank between the frame and the tank.

Step 6: Remove the passenger side fuel hanger from the tank in the same way the left was removed.

Step 7: Remove the factory regulator from the pump hanger and replace it with the supplied regulator block off button.



Step 8: Reinstall the passenger side hanger, tank, and crossover tube into the car.



## Fuel Lines

Step 1: Run the fuel feed line from the tank under the driver's side frame rail and up to the upper frame rail.

Step 2: Install the supplied RSI -8 high pressure fuel filter and the clamp with the sheet metal screw. The fuel filter inlet is on the side with the large nut.



Step 3: Run the 96" -8 fuel feed hose from the fuel filter through the tunnel and up the back of the driver's side bell housing area to the rear of the passenger fuel rail area. (You may find it easier to run the hoses with the tunnel plate removed).

Also remember to keep fuel lines away from moving parts and heat sources. Tie lines into place using the supplied cable ties.

Step 4: Install your RSI fuel rails and fittings onto the engine. Always use care when mounting injectors into the rails and intake. It is always a good idea to use a light silicone lube to guide the o-rings into place. Always discard and replace a damaged o-ring.

Step 5: Install the fuel regulator and bracket onto the front of the brake booster assembly.

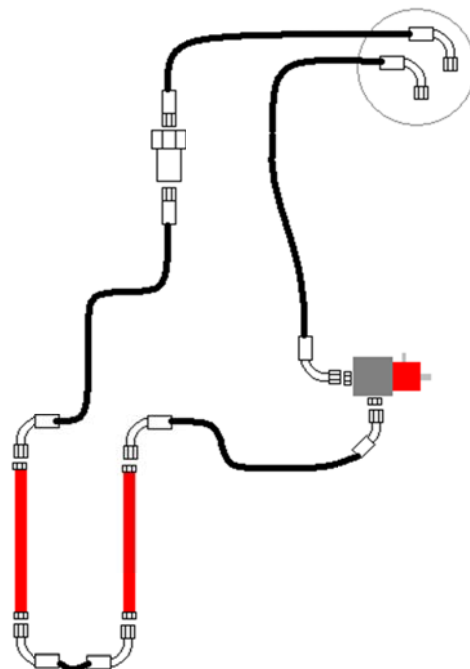


Note: Stage 2 and 3 kit will vary from the above image. Only the left side port as viewed will be used and the right port will be plugged off.

Step 6: Run the fuel lines from the front of the passenger rail to the front of the driver side rail and hook up the feed line at the back of the passenger rail.

Step 7: Install the 16" -6 return line from the rear of the driver rail to the side of the regulator.

Step 8: Run the line 113" -6 fuel line from the tank to the bottom of the pressure regulator.



Step 9: Hook up the pressure reference for the regulator if desired using the supplied vacuum hose and tee fitting.

# Fuel Pump Wiring Kit Installation

Step 1: Install the wiring kit by simply plugging it into the factory wiring and into the left side hanger.

Step 2: Connect the ground loop to the ground near the filler neck.



Note: Stage 1-3 systems will have 2 relays and stage 4 systems will have 3 relays as pictured.

Step 3: Use the supplied screws to mount the relays onto the outer frame.

Step 4: Run the hot wire and fuse up the inside of the driver rocker panel and up to the alternator power stud.

Step 5: Use the supplied cable ties to keep the wiring away from the wheel and any heat sources.

Step 6: Reinstall both fender liners and wheels.

## Almost Done

Reverse any steps for final installation as necessary. Check all bolts and fittings before going any further. Make sure all connections are tight and tied up away from heat and moving parts.

Check your fuel pressure by installing a fuel pressure gauge onto the pressure regulator check port 1/8" NPT fitting. Prime the fuel system by cycling the key on and off in 10 second intervals. Check all connections for fuel leaks. Start the vehicle and set fuel pressure as desired.

On some vehicles it may be necessary to reset the ECU using a code reader to reset the fuel gauge at first. If you continue to have fuel level issues you may need to check your electrical connections and the level arm movement in the tank.

For technical questions or more information regarding this or any other RSI product feel free to contact our technical service department at 1-940-683-0078 open Monday to Friday 10:00 AM to 7:00 PM CST.

Or send us an email at [Support@Racingsolutions.com](mailto:Support@Racingsolutions.com)