

2014+ CHEVROLET CORVETTE

DEDICATED FUEL SYSTEM 00-12028

INSTALLATION INSTRUCTIONS

This Nitrous Outlet Dedicated Fuel System is designed specifically for the 2014+ Chevrolet Corvette. If you need any assistance during installation or if you have questions about this wiring harness, call our Tech Help Line at (254) 848-4300.

Parts List Located in the back of this Installation Guide

Tools Needed For Installation:

- Floor Jack
- 4 Jack Stands
- 10mm Wrench
- 13mm Wrench
- 9/16" Wrench
- 11/16" Wrench
- 3/4" Wrench
- Drill

- Step Bit
- Wire Routing Pole
- 9/64" Hex Wrench
- 3/16" Hex Wrench
- 8mm Hex Wrench
- Ratchet
- 10mm Socket
- 3/4" Socket
- T15 Torx



Step 1:

Remove the trunk floor from your vehicle.



Step 2: Disconnect the battery with a 13mm wrench.

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Step 3:

Use a floor jack to jack the vehicle up. Then, place jackstands under the vehicle. Be sure to use the lift points for the jack or you risk damaging your vehicle.



Step 4: Lift the vehicle completely off of the ground.



Step 5:

Remove both the front tire on the drivers side of the vehicle with a 3/4" socket and impact or ratchet.



Step 6:

Use a trim tool to release the trim tabs on the inside of the front fender liner.

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<u>NSTALLATION INS</u>TRUCTIONS



Step 7:

Remove the retaining screw from bottom of the fender with a T15 Torx Bit.



Step 8: Remove the screws on the inside of the fender with a T15 Torx Bit.



Step 9: Pull the front fender well lining out of the fender.



Step 10: Remove the rear tire with a 3/4" Socket and impact wrench or ratchet.

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Step 11:

Remove the screws from the inside of the rear fender well with a T15 Torx Bit.



Step 12:

Gently pull on the splash guard to remove it from the vehicle. Be sure to not damage any of the clips that attach it to the vehicle.



Step 13: Remove the trim tabs on the inside of the rear fender well with the trim tool.



Step 15: Remove the fender well lining from the rear fender well.

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Step 16:

Locate the storage compartment on the drivers side in the trunk of the vehicle. Be sure the compartment is cleaned out.



Step 17:

Place the dedicated fuel system in the storage compartment. The fuel feed and retun fitting should be facing the rear of the vehicle. Use a marker to mark the places you'll need to drill 3 holes. There will be one hole for the fuel feed, one for the return hose, and one for the vent hose.



Step 18:

Be sure the area that is behind where you marked the holes is clear of anything that can be damaged by the drill bit. Then use a step bit and drill to drill three 1-1/16" holes.



Step 19: Vacuum the area with a shop vac.

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Step 20:

Use a de-burring tool to clean up the edges around the holes.



Step 21:

Install the rubber grommets that came with your dedicated fuel system into the holes.



Step 22:

From the rear fender well, reach inside the drivers side rocker panel and remove the plastic clamp that holds the fuel lines together.



Step 23:

Tape the end of the fuel hose onto a wire pulling rod, then feed the rod through the rocker panel of the vehicle from back to front.

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Step 24:

After the hose is completely through the rocker panel, remove it from the wire pulling rod. Then route the fuel line up into the fender well, and into the engine bay.



Step 25:

Ensure that there is enough fuel line in the engine bay to reach the fuel pressure regulator mounting location near the drivers side suspension mount.



Step 26:

Route the fuel line through the rear drivers side fender well and through the holes in the storage compartment... Make sure that it's clear of any moving suspension components. Repeat step 23-26 for the other fuel hose.



Step 32:

Make sure that the fuel hoses are pushed into the storage compartment enough that they will reach the outlets on the fuel tank.

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Step 33:

Mark the hoses and cut them to the proper length to reach your dedicated fuel tanks fittings.



Step 34: Put the female side of the hose end onto the fuel hose.



Step 35:

Spray silicone lubricant onto the threads of the male side of the hose end, then screw it into the female side of the hose end. Use a 3/4" wrench to tighten it down. Both of the hoses will have 180° hose ends where they connect to the tank. Under the hood, the hoses will need to have straight hose ends.



Step 36:

Tighten the fittings into the regulator. The 90° fitting on the bottom of the regulator should point towards the back of the vehicle. Place a drop of blue loc-tite on the fitting and tighten it into the regulator with a 3/4" wrench.

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Step 37:

The straight fittings on the regulator should face towards the front and back of the vehicle. Put a drop of blue loctite on the threads of the fittings and tighten them down with a 3/4" wrench. Put a drop of blue loc-tite on the 3/8" hex plugs and tighten them into the sides of the regulator with a 8mm" Hex Wrench.



Step 38:

Depending on what fuel pressure you plan on running on your dedicated fuel system you may need to change the spring in the regulator to adjust the fuel pressure output. The regulator comes with the low fuel pressure spring installed. If you paln on using high fuel pressure, you'll need to remove the top of the regulator with a 9/64" Hex Wrench and install the high pressure spring.



Step 39:

Remove the bolt that mounts the coolant reservoir to the shock tower with a 10mm Socket and Ratchet.



Step 40:

Mount the regulator to the bracket with a 9/64" Hex Wrench. Blow the hoses out with an air hose, then tighten the fuel return hose onto the bottom of the fuel pressure regulator.

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Step 41:

Tighten the fuel return hose with a 11/16" wrench. Do not over tighten the hose.



Step 42:

Thread the fuel feed hose onto the fuel pressure regulator. It will need to go on the fitting facing the back of the vehicle. Tighten it down with a 11/16" wrench. Do not over tighten the hose onto the regulator.



Step 43:

Mount the regulator and bracket to the shock tower with a 10mm Socket and Ratchet. Use the stock bolt for mount-ing the regulator.



Step 44:

Measure the remaining hose for the fuel feed from the fuel pressure regulator to the fuel solenoid. Cut the hose using a pair of hose cutters.

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Step 45:

Place a female hose end on both ends of the hose.



Step 46:

Spray silicone lubricant on the threads of the male hose ends. Tighten the male hose ends into the female hose ends with two 3/4" wrenches. One end of the hose will have a 45° degree hose end, and the other end will have a 180° degree hose end.



Step 47:

Tighten the 45° hose end onto the only remaining fitting on the fuel pressure regulator with an 11/16" wrench.



Step 48:

Tighten the 180° hose end onto the fuel solenoid. Use a 11/16" wrench to tighten the hose down.

Your system will also include a straight hose end in the event your particular application requires one.*

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Step 49:

Use a 11/16" wrench to tighten the fuel feed and return hoses onto the tank of the dedicated fuel system.



Step 50:

Put a hose end on the vent hose, and route the vent through the remaining hole in the storage compartment. Tigthen the vent hose onto the tank with a 9/16" wrench.



Step 51:

Now begin reassembly and start wiring the dedicated fuel system into your existing nitrous system. After your fuel system is wired, turn on your dedicated fuel system and check for leaks.

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Sealing Your Fittings

When sealing NPT fittings for your nitrous or fuel system, we recommend using Blue Loc-Tite. If you use Teflon Tape or a liquid Teflon sealant, you risk pieces of Teflon coming loose and entering your nitrous or fuel system. These small pieces can affect the performance of your system or cause damage to your nitrous/fuel system and engine. AN type fittings are self sealing, and do not need any type of additional sealant.

Setting Your Fuel Pressure

Nitrous Outlet jetting recommendations are based on flowing fuel pressure rather than static fuel pressure. This means that in order to set your Fuel Pressure Regulators output pressure, you'll need to set the regulator with fuel flowing through it. When setting the flowing fuel pressure you need to use a Flowing Fuel Pressure Test Gauge. If you or a shop near you doesn't have one, they can be ordered from Nitrous Outlet using part number 00-63010.

Your Aeromotive Fuel Pressure Regulator is capable of running both low pressure (3-20PSI) and high pressure (20-60PSI). Your Fuel Pressure Regulator uses springs to switch between low and high fuel pressure. When you receive the Fuel Pressure Regulator the low pressure spring is installed in it, and the high pressure spring is inside the hardware package for your Dedicated Fuel System. To change the spring inside the fuel pressure regulator, carefully disassemble the regulator using the 4 bolts that hold the top (black) and bottom (red) halves together. Once the bolts are loose, the regulator should come apart easily. Slowly pull the 2 halves apart from each other, paying close attention to how the regulator is assembled. It is imperative that once you change the springs out that you assemble the regulator back together correctly. If it's not assembled correctly, you could have problems maintaining a steady fuel pressure.

Forced Induction Applications

The vacuum fitting located on your fuel pressure regulator does not need need to be used unless you are also running a Supercharger or Turbocharger. In the event that you are using forced induction, this fitting will be for your boost reference. If your nitrous system injects before the Supercharger or Turbocharger (via Nozzle System or Throttle Body Plate System) you will not need to use the boost reference port. However; if you are injecting the nitrous on the boosted side of the Supercharger or Turbocharger (Spray Bar Systems or Direct Port Systems), you will need to use the boost reference port on the fuel pressure regulator. Connecting a vacuum line to the regulator will ensure that as your boost rises, the fuel pressure will rise accordingly. This will keep a steady fuel pressure under boost conditions.



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Dedicated Fuel System Wiring Diagram



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Parts List:

Dedicated Fuel System Tank with Pump Locking Fuel Lid **Fuel Pressure Regulator** High Fuel Pressure Regulator Spring (Low Pressure spring is installed in regulator) Fuel Pressure Regulator Mounting Bracket 3/8" x 6AN Straight Fitting 3/8" x 6AN 45° Fitting 2 x 3/8" X 6AN 90° Fitting 2 x 3/8" NPT Hex Plug 2 x 6AN Straight Hose End 6AN 90° Push-Loc Hose End 6AN 45° Hose End 3 x 6AN 180* Hose End 1ft Push-Loc Hose 36ft Stainless Braided Fuel Hose **Relay & Harness** 2-Way Weather Pack

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