Universal Wet Single Nozzle Nitrous System

X-Series 1/16NPT 90° Nozzle
Nitrous Outlet 1/8NPT 90° Nozzle
Nitrous Outlet Hydra Nozzle

INSTALLATION INSTRUCTIONS

This Nitrous Outlet nozzle system is designed for multiple vehicle applications. If you need any assistance for your specific vehicle during installation or if you have questions about this nozzle system, call our Tech Help Line at (254) 848-4300.

Tools Needed for Installation:

- 1/4" Wrench
- 7/16" Wrench
- 9/16" Wrench
- 3/4" Wrench - 2
- 11/16" Wrench
- 13/16" Wrench
- 1/2" Wrench
- 5/8" Wrench
- 7/8" Wrench
- Drill
- 22mm Socket
- Ratchet
- 3/8" Drill Bit
- 9/16" Drill Bit
- Phillips Head Screwdriver
- 5/16" Fuel Disconnect Tool
- Blue Loctite
- Black RTV Silicone
- Valve Stem Removal Tool

*These are the tools required for installation of this kit on a stock vehicle. If your vehicle has aftermarket parts, other tools may be required. Additional tools may be required for disassembly/reassembly of your particular vehicle. *

Step 1 – Battery Disconnection

- Disconnect the negative battery terminal.

Step 2 – Nitrous Nozzle Installation

- Determine nozzle location. This area should be as flat as possible and free from obstruction. Once the location is determined mark the air tube.

Note: *Nozzle location is important in order to provide proper atomization into the air stream. Ideal nozzle location is 2" to 6" before the throttle body and mounted in a manner that the discharge will not collide with the wall of the air tube.*

- Remove the intake air tube that feeds the throttle body.

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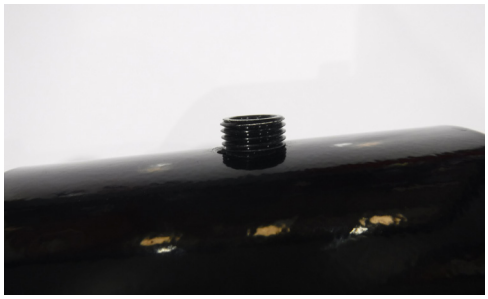
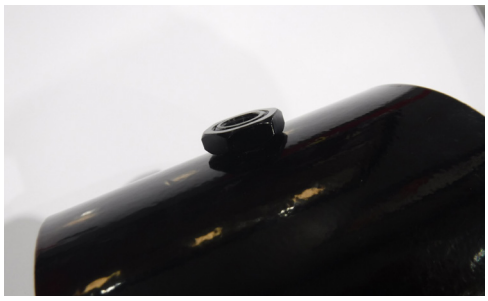
- Using a 9/16” drill bit, drill a hole into the air tube.

- Apply a thin bead of RTV silicone onto the inside flat surface of the male part of the nozzle bung.



- Install the male end of the nozzle adapter bung into the air tube from the inside.

  Note: *The threaded part of the bung should protrude to the outside of the air tube.*



- Apply a thin bead of RTV silicone onto the inside of the nozzle adapter nut and thread it onto the nozzle adapter by hand.

  Note: The side of the nut with silicone should face the air tube.

- Screw the nitrous nozzle into the nozzle adapter. Aim the nitrous discharge so that it is aimed down the center of the air tube towards the throttle body. Then using two 3/4” wrenches tighten the nozzle adapter nut down onto the bung.

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- Reinstall the intake air tube.

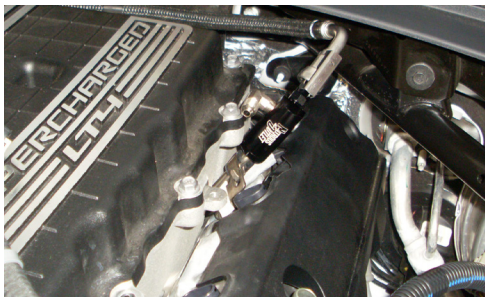
Step 3 – Fuel Adapter Installation

- Determine the fuel adapter that is correct for your application. This step may require the purchase of a vehicle specific fuel adapter. If you are unsure contact a Nitrous Outlet technical advisor for guidance at 254-848-4300.

Note: *The fuel system will be under pressure. On older model applications removing the fuel tank cap can help relieve pressure. It is important that the engine is cool to touch and free of any heat. Use a rag to catch any fuel that may leak as you disconnect the fuel components.*

Fuel Rail Test Port/Shrader Valve – Many applications have a test port, usually covered with a plastic cap. To use this location as a fuel supply you will need to remove the plastic cap and remove the valve stem with a valve stem removal tool.

Inline Fuel Adapter – Most import applications require splicing the fuel feed hose and installing an inline fuel adapter. The feed hose will slide onto the barb end of each side of the fitting and secure with the worm gear fasteners. Use blue Loctite to secure the NPT end of the 1/8 NPT x 4AN fitting into the body of the fuel adapter.



Vehicle Specific Fuel Adapter – Most new model applications require a specific fuel adapter. These adapters are designed to attach onto the factory fuel components. Follow the instructions that are specific to the required fuel adapter.

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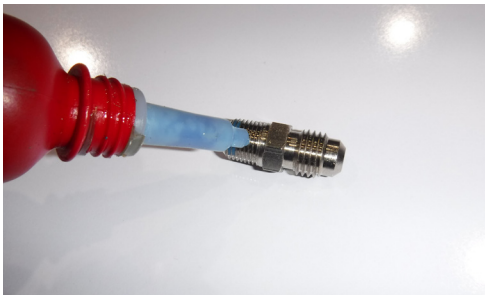

Step 4 – Solenoid Assembly and Mounting

- Install the solenoid inlet and exit fittings by applying a mild grade of blue Loctite onto the NPT threads and tightening them into the solenoid. The solenoids are labeled **IN** for the inlet and **OUT** for the outlet.

Fittings for System Type

- X-series Nitrous Solenoid —
  Inlet = 1/8 NPT x 4AN Straight Fittings
  Outlet = 1/8 NPT x 4AN Straight Fittings

- X-series Fuel Solenoid —
  Inlet = 1/8 NPT x 4AN Straight Fittings
  Outlet = 1/8 NPT x 3AN Straight Fittings

- Nitrous Outlet Nitrous Solenoid —
  Inlet = 1/4 NPT x 6AN Straight Fittings
  Outlet = 1/8 NPT x 4AN Straight Fitting

- Nitrous Outlet Fuel Solenoid —
  Inlet = 1/8 NPT x 4AN Straight Fitting
  Outlet = 1/8 NPT x 3AN Straight Fitting

- Determine solenoid mounting location. This area should be free from any engine component that creates an excess amount of heat, such as exhaust, turbo, or a blower. Use the nozzle feed and fuel feed hoses as a point of reference for allowable distance from the nitrous nozzle.

  Note: *Solenoids can be mounted vertically, horizontally, or upside down.*

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- Using the supplied solenoid mounting screws attach the solenoids to the universal mounting brackets. Then bolt them into location. The bracket is designed to be bent to fit your mounting requirements.

  Note: *Applying Loctite onto the screw threads can keep the screw from loosening due to engine vibrations.*

Screws for System Type

- X-series Fuel and Nitrous solenoids = #8-32 x 1/4
- Nitrous Outlet Fuel and Nitrous solenoids = #10-32 x 3/8

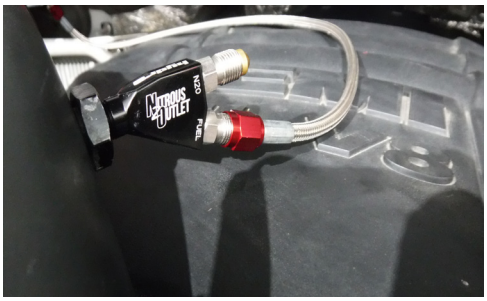
Step 5 – Jet Installation

- Install the nitrous and fuel jet into the nozzle. The nozzle is engraved **N2O** for nitrous jet location and engraved **FUEL** for fuel jet location.

  Note: *Use the jet card that came with the nitrous system to choose the correct jetting recommendation for your desired horsepower.*

Step 6 – Nozzle Feed Hose Installation

- Using compressed air, blow out both of the 24" 3AN hoses to make sure there are no debris or containments.



- Connect the hose with red B-nuts to the fuel side of the nozzle and finger tighten.

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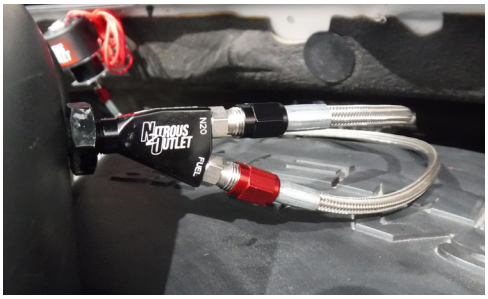
INSTALLATION INSTRUCTIONS

- Connect the opposite end of the hose to the exit fitting at the fuel solenoid.



- Connect the hose with black B-nuts to the nitrous side of the nitrous nozzle and finger tighten.

- Connect the opposite end of the hose to the exit fitting at the nitrous solenoid.

- Tighten both ends of the hoses with a wrench.

Step 7 – Fuel Feed Line Installation

- Using compressed air blow out the 18" 4AN hose with red B-nuts to make sure there are no debris or containments.

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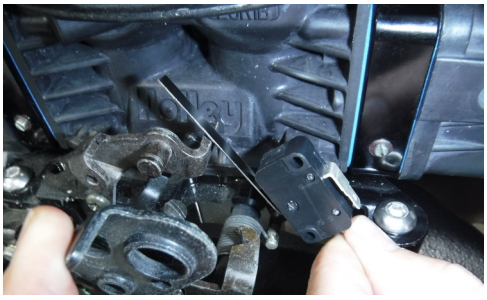
INSTALLATION INSTRUCTIONS

- Connect the hose onto the fuel supply and fuel solenoid inlet fitting. Then tighten with a wrench.

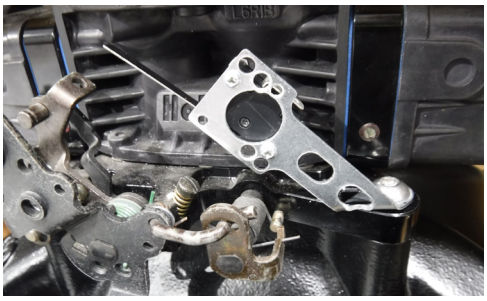


Step 8 – WOT Switch Installation

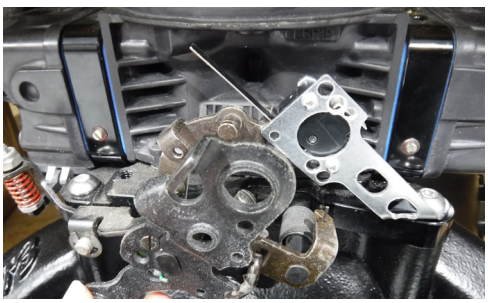
- **Note:** The fuel system will be under pressure. On older model applications removing the fuel tank cap can help relieve pressure. It is important that the engine is cool to touch and free of any heat. Use a rag to catch any fuel that may leak as you disconnect the fuel components.

- Making sure that the WOT switch arm can make contact at wide open throttle, determine a mounting location for the supplied universal WOT switch bracket. The bracket is designed to be bent to a position that fits the installation needs.

- Note the position of the WOT switch and bolt it to the bracket using the two supplied #4-40 screws and nuts.



- Bolt the WOT switch assembly in place.



- Rotate the throttle to ensure that the WOT only makes contact at wide open throttle.

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INSTALLATION INSTRUCTIONS

Step 9 – Bottle Installation

- Using a 22mm socket, install the bottle nipple on to the bottle valve.

- Determine the mounting position of the nitrous bottle.

***Note:** Bottle placement is critical to the performance of the nitrous system. It is important to mount the nitrous bottle properly to ensure that the siphon tube inlet is submerged in liquid nitrous. If mounting the bottle in lay down position, the bottle valve must be towards the front of the vehicle with the label facing up.*

Lay Down Mounting - If mounting the bottle in lay down position, the bottle valve must be towards the front of the vehicle with the bottle nipple facing down. This position will orient the siphon tube at the back of the bottle where the liquid nitrous will be during acceleration.

Vertical Mounting - If mounting the bottle vertically, the bottle nipple must face toward the back of the vehicle. This position will orient the siphon tube at the back of the bottle where the liquid nitrous will be during acceleration.

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Sideways Mounting - If mounting the bottle sideways, the bottle nipple must be angled around 45° downward, toward the rear of the vehicle. This position will orient the siphon tube at the back side of the bottle where the liquid nitrous will be during acceleration.

- Place the nitrous bottle into the stainless bottle brackets and tighten in place. Using the brackets as a pattern, trace around the outside mounting tabs of the brackets.

- Remove the nitrous bottle from the brackets. Place the brackets back to the mounting area and mark the bolt hole locations using the traced pattern as a reference.

- Using a 3/8 drill bit, drill the four mounting holes.

  Note: *Before drilling make sure the area is free of any components that could be an obstruction.*

- Secure the bottle brackets in place using the supplied 5/16” bolts, washers, and nuts.

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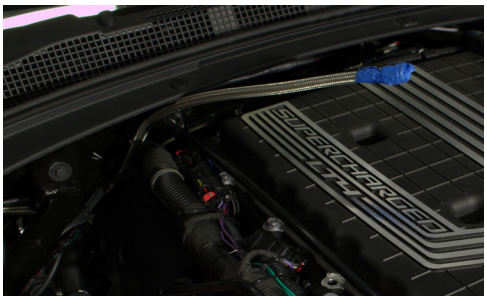
INSTALLATION INSTRUCTIONS

Step 10 – Nitrous Feed Line Installation

- Using compressed air blow out both of the 16' feed hoses to make sure there are no debris or containments.

Feed Hose Size for System Type

X-series = 16ft 4AN hose with black B-nuts
Nitrous Outlet = 16ft 6AN hose with black B-nuts



- Route the feed hose from the bottle mounting location, into the engine bay, then to the solenoid. The feed hose can be routed through the vehicle or underneath the vehicle. Make sure to stay clear of any electrical components, moving parts, suspension, excessive heat sources, and items that are abrasive.

- Remove the tape off the end of the feed hose. Using a 9/16" wrench for an X-Series feed hose or an 11/16" wrench for a Nitrous Outlet feed hose tighten the B-nuts on to the solenoid inlet fitting.

- Using a 9/16" wrench for an X-Series feed hose or an 11/16" wrench for a Nitrous Outlet feed hose tighten the B-nuts on to the bottle nipple.

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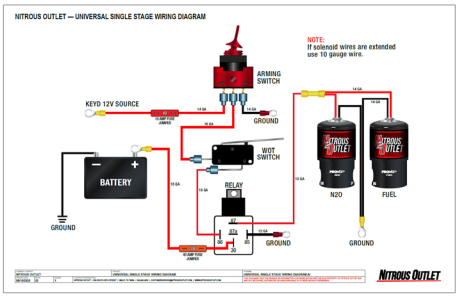

Step 11 – Wiring

- This step will cross over into the installation of other components you're installing in conjunction with the nitrous system, such as nitrous controller, bottle heater, purge etc. Use the diagrams that came with those components to route the wiring.

  Note: *The diagram to the left is a basic system diagram with a WOT Switch. To view a larger diagram, turn to the last page of these instructions, however, you should be using a nitrous controller that incorporates a window safety switch with TPS activation.*

Step 12 – Final Check Over

- Reconnect the battery.
- Key car on and let the system prime. Check all fuel system components for fuel leaks.
- With the nitrous bottle still closed check the system functions to ensure proper wiring and proper settings of any electronic controllers.
- With the nitrous system deactivated open the nitrous bottle and check for any nitrous leaks.

Step 13 – Final Assembly

- Reinstall any interior, exterior, or engine components you may have removed during installation.

CONCLUSION

You have finished your installation.

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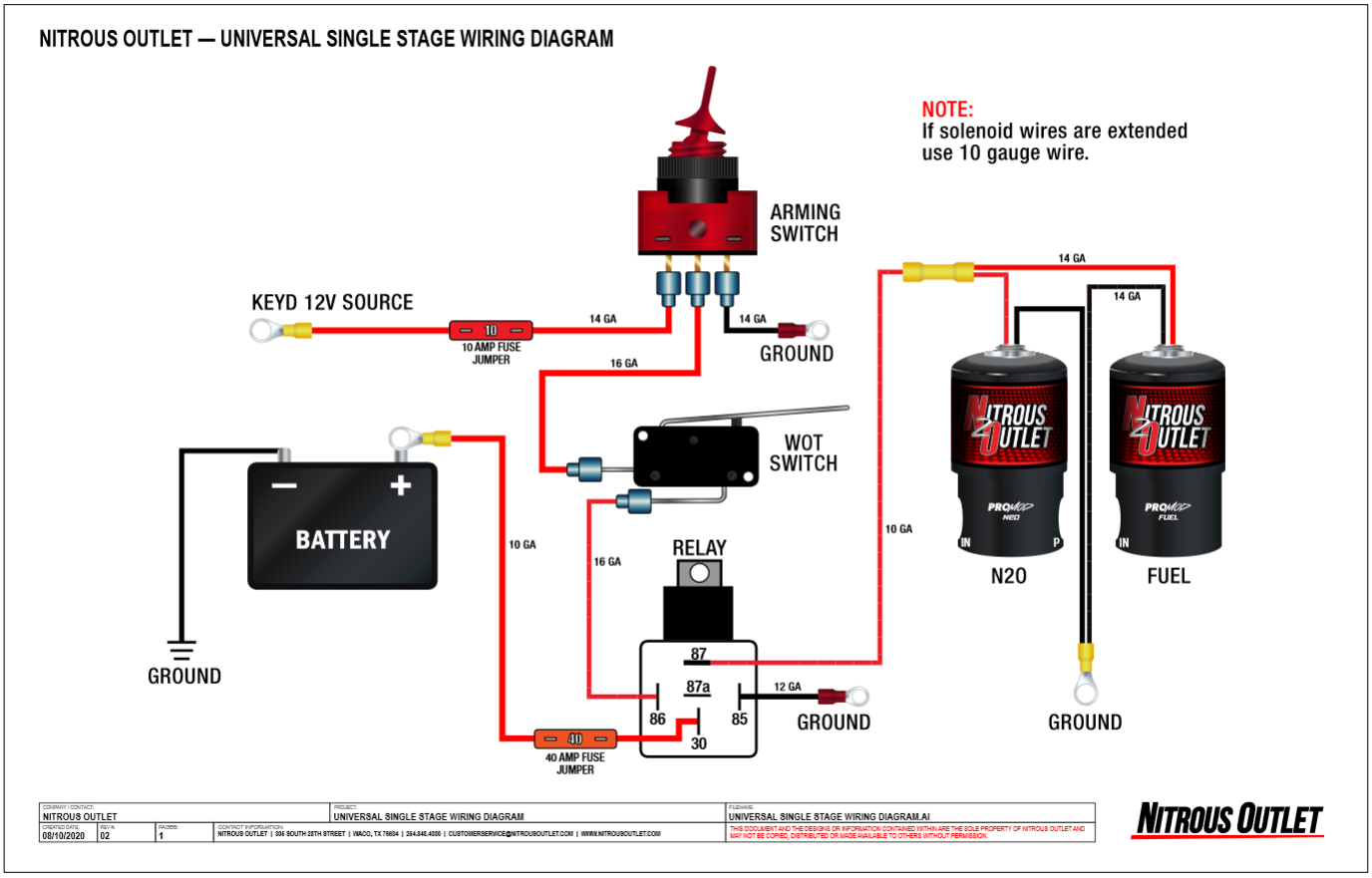
System Wiring Diagram



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