

# Wizards of N10G

## Street-Blaster 150i-TDI Dry Nitrous System - Export

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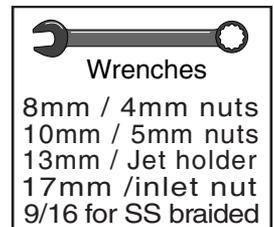
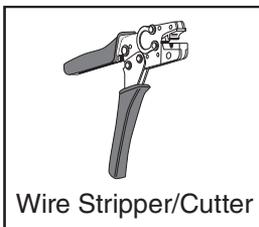
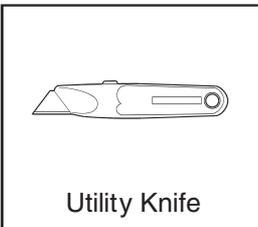
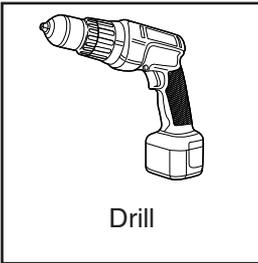


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## Tools Required

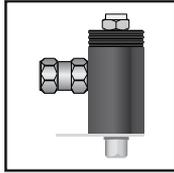




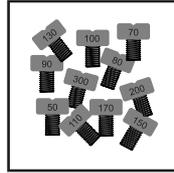
- 10lb bottle
- 5lb bottle



- Bottle bracket



- N2O Pulsoid



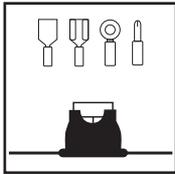
- Jets



- Venom injector



- Micro Switch w/ bracket



- Wiring 10ft-5ft
- Connectors
- Fuse holder
- 20 amp fuse



- Arming switch w/ flip cover



- 4mm (blue) 1m
- 3AN SS hose 5m



- 3 x 4mm nuts/olives



- Sticker

## Nitrous Bottle Mounting

The nitrous cylinder must be mounted exactly as shown (Fig.1). In this position **liquid** nitrous oxide will be delivered, which is essential for the system to work properly. If you can't mount the cylinder exactly as shown, phone for advice. The brackets supplied will provide secure mounting with quick release for ease of refilling.

Position the bottle brackets to ensure that the valve end of the bottle is **higher** than the base end, with the outlet pipe connection pointing towards the floor (no other way). Please contact us if you are unable to mount the cylinder as shown for vehicle specific advice.



**Fig. 1**

### **Our Max Flow bottle valve is equipped with our unique SPRV:**

The "SPRV" is a Safe Pressure Relief Valve that is a superior alternative to "blow off discs" that are used on all other brands of valve. Factory set at 1,400 psi and can be adjusted up to 1,700 psi. Pressure control ensures that you won't damage your engine due to excessively high bottle pressures causing a lean out or suffer a burst disc that would lose all the bottle contents.

The "SPRV" works by opening and bleeding off excess "gaseous" pressure when the set pressure is reached and then closes again when the pressure has dropped to a safe level and under normal conditions only a minimum of nitrous gas is expelled.

**Please contact WON if you want advice on adjusting the setting.**

## **WARNING**

**The cylinder valve should not be opened unless the outlet is aimed into open space, or connected to the system.** When the valve is opened nitrous is discharged at a high pressure (approximately 800-1,200 psi @ - 129 degrees), at which this temperature can cause a painful freeze burn if it makes contact with the skin.

## SS Braided Supply Pipe Routing

Be sure to route SS braided supply pipe via the coolest possible exterior locations as shown in fig. 2. This requires a hole to be drilled through the trunk floor to pass the supply pipe through to the underneath of the vehicle and run through to the engine bay or the front inner fender or similarly cool area (B). If you are unable to find a suitable route for the pipe as described, **please contact WON for advice.**

## Pulsoid Installation

The Pulsoid must be mounted in the coolest possible location close to the injector (**if possible the pipes between the Pulsoid and the injector should be kept under 12" for optimum performance**). The Pulsoid must also be easily accessible for jet changing, as the metering jet is located in the outlet (Fig.5). If possible **avoid** mounting the Pulsoid at the back of the engine, on the firewall (bulk head), or rear inner wings as these are usually the hottest parts of the engine bay, which increases the vaporisation process of the liquid nitrous to gas. Examples of suitable Pulsoid locations in the order of preference are;

**1)** Skuttle (between windscreen and engine bay), **2)** Front inner wing, See Fig. 2.

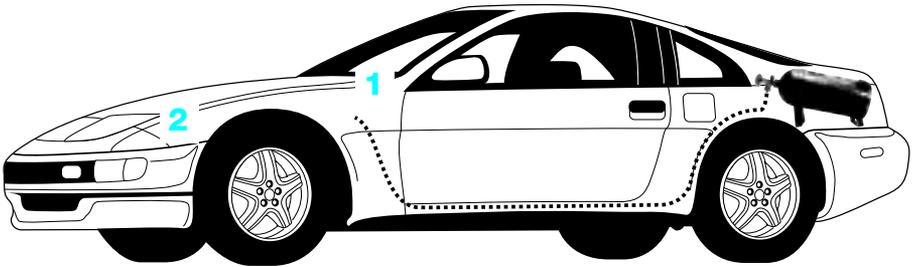


Fig. 2

## **WARNING**

**Always** run the supply pipe in the coolest possible areas, as heating causes the liquid nitrous to turn to gas, which causes overfueling due to inadequate nitrous flow resulting in poor performance.

## Stainless Steel Braided Hose

Run the braided hose from the Nitrous cylinder to the Nitrous Pulsoid as shown in Fig 2. Cut the hose to length and fit the nut, olive and end fittings as described in the braided hose assembly instructions, before securing to the components.

Check that the pipe is totally sealed by briefly turn on the Nitrous cylinder valve and inspect for leaks with soapy water at the connections. If a leak is detected, tighten up the nut (whilst avoiding contact with any escaping gas particles) until the leak is stopped. When you are satisfied that the system is leak proof, release the pressure in the system by using an optional purge (if installed) or loosening the fitting at the bottle nut.

### Braided Hose Fittings

4 AN fitting (male)

4 AN hose end fitting (female)

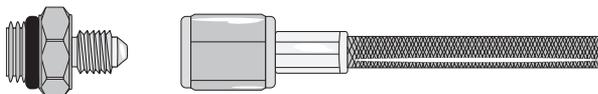


Fig. 3

### Nylon Pipe Fitting - Pulsoid to Venom Injector

Determine the length of pipe needed to connect the Pulsoid to the Venom injector. Cut the pipe to length using a sharp utility knife (DO NOT use wire snips, pliers, etc. as these will deform the pipe end, making it impossible to fit the nut and olive). Slide the nut and olive onto the pipe ends as shown below (Fig. 4).

Insert the pipe ends into the fittings (bottle, Pulsoid etc.), then slide the nut and olive into the fitting. Tighten the nut to retain and seal the pipe (but without excessive force) as this will crush (neck) the pipe and restrict the flow. Make sure to hold the nylon pipe securely, so it doesn't back out while tightening the nut.

### Nylon Pipe Fittings

5mm Bottle/Pulsoid fitting

Olive

Nut

Nylon pipe

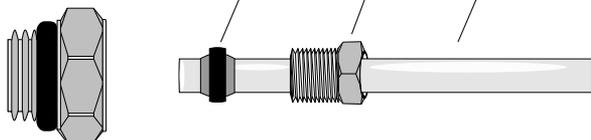


Fig. 4

**NOTE:** None of the above pipe fittings require sealant on the threads.

**IMPORTANT:** Always ensure the use of the correct size wrench otherwise you will be at risk of damaging the nuts and the pipe may fail to seal correctly.

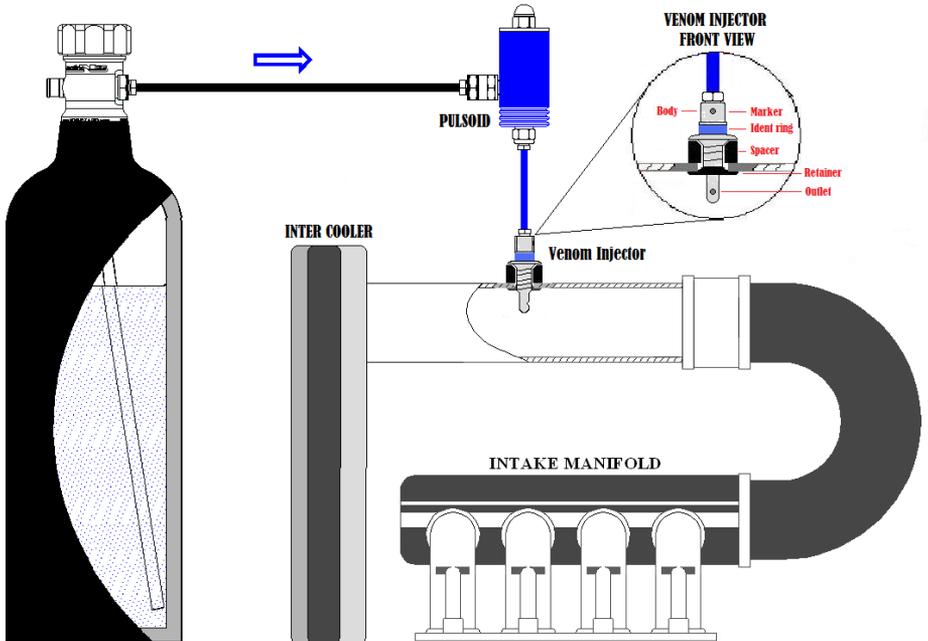
# Venom Injector Installation

The Venom injector can be fitted to a rubber, plastic or metal intake hose after the intercooler and before the intake manifold. For best results it should protrude as far in to the center of the hose as possible.

When fitting to a rubber inlet hose, a small hole should be punched in a suitable location and the Venom injector secured by the retainer fitted to the inside (Fig. 5). When fitting to a plastic hose or a metal section of the induction systems, a 5mm hole should be drilled in a suitable location and tapped to 6mm for the Venom injector to screw in to.

## Venom Injector Fitting Diagram

Fig. 5



**! WARNING**

Disregarding these instructions could result in poor performance and/or engine damage.

## Metering jet size verification

Before connecting the outlet pipe to the Pulsoid, it is **essential** to check that the metering jet is fitted to jet holder / outlet adapter and that is the right size to suit your application. The jet holder / outlet adaptor is located at the opposite end to the mounting stud (see Fig. 5) and can be unscrewed by using a 13mm wrench.

Once removed the head of the metering jet should be visible protruding slightly from the end of the male thread and it should be possible to see a size/number on the side. If you can't see a number you'll need to remove the jet for closer inspection, possibly with the aid of a magnifying glass.

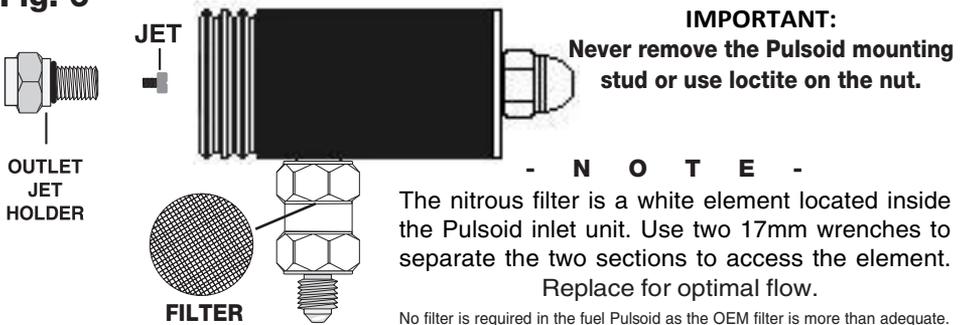
To remove the jet put the jet holder in a 13mm ring spanner or 'clean' socket and unscrew the jet using a suitable flat blade screwdriver.

Check the jet size against the parts list supplied with the system or the jet specification chart on our web site.

Assuming you have the correct jet, screw it back in to the jet holder using your fingers and then 'lightly' nip it up with the screwdriver to make a seal, then reassemble in the reverse order of the above instructions.

**CAUTION; The metering jets are made from brass and are easily damaged beyond use if a badly fitting screwdriver or excessive force is used on them.**

**Fig. 6**



## Jetting (TDI vehicles ONLY)

- 1) The 'theoretical' power rating is half the nitrous jet number (e.g. 200 = 100bhp).
- 2) Extra fuel needs to be added using a method that best suits your application.

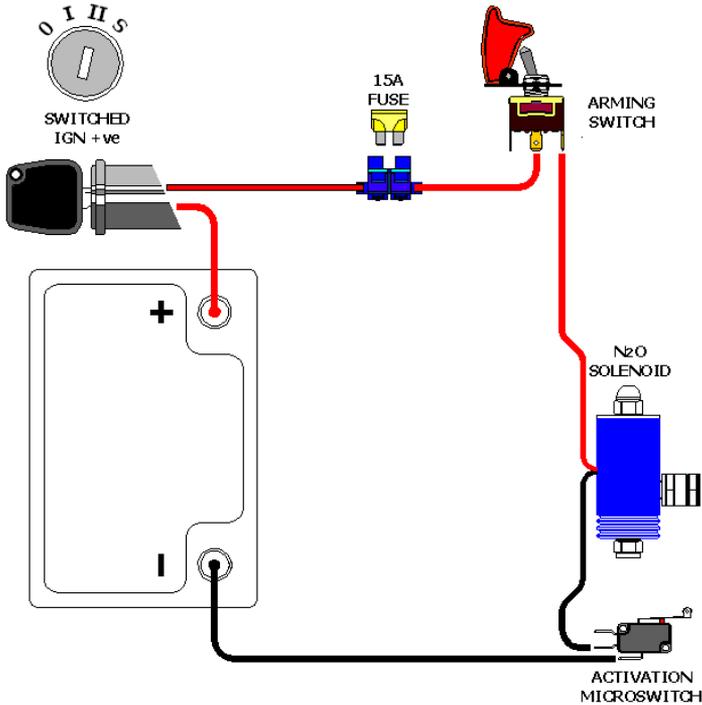
# Throttle Switch Installation

The micro switch should be mounted to the throttle body, foot pedal, etc. where it can be activated at wide open throttle, after modifying the universal mounting bracket as required to suit your car. Once fitted it is **essential** to check the operation in the following manner.

1. Have the **driver** sit in the drivers seat as **normal**.
2. Have the **driver** slowly press down **fully** on the throttle pedal, whilst an assistant watches the movement of the throttle mechanism in the engine bay.
3. Check that the throttle mechanism **fully** operates the micro switch at full throttle.

**IMPORTANT:** Never rely on setting up the switch by hand operating the throttle mechanism, as this may not duplicate actual pedal movement.

**Fig. 7**



**⚠ WARNING**

When WON switches are not used, alternative replacements rated at a minimum of 15 Amps should be used, unless a suitable relay of at least 15 Amps is added.

# Test Procedure

- 1.** Disconnect the inlet pipe from the Venom injector and aim the it to atmosphere. Hold the pipe securely and activate the system briefly, monitoring the results at the open pipe end. N2O liquid should be seen flowing from the pipe as the system is activated, and should stop flowing when the system is switched off.
- 2.** Connect the pipe back into the Venom injector.
- 3.** Start the engine and run up to normal temperature, hold the revs at approx. 1/3 of max. rpm (e.g. max. rpm limit 6,000 test rpm 2,000) and briefly activate the system whilst monitoring the engines response, and the exhaust gases.
- 4.** Engine rpm should rise (as if you had operated the throttle) and then fall back to normal as you release the switch, whilst the exhaust should become less black than normal smoke which indicates a leaner mixture. If the engine sounds in any way different to the way it sounds when you rev. up the engine normally, cease testing and report to our technicians.
- 5.** If all goes as it should, then you can take the vehicle on the road and carry out the next test. Accelerate hard from say 30 mph up to 70 mph. You should feel a stronger acceleration and less black smoke. If you hear any noises other than a louder exhaust note, or you feel anything other than a smooth surge of power, cease the test and contact our tech team.

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