

# DynoTune Motorcycle Nitrous Purge Installation

STND

MASTER "B"

Congratulations on your purchase of the finest nitrous purge kit available.

Please read all the instructions and warnings so your purge system will perform as designed for years of trouble free use. The purpose of the Purge is to remove all the gaseous nitrous and air from the main feed line near the solenoids. This will eliminate any bogs or hesitations when the Nitrous is activated, as it will hit much harder meaning more power, quicker.

**Note:** Always wear safety glasses when working on your car. Before you begin make sure that the bottle valve is closed and the main nitrous line is empty. Liquid nitrous can cause serious burns or frostbite if it sprays on your skin! If your not sure the line is empty, wear a glove and crack the line at the bottle and slowly let the Nitrous leak out of the lines.

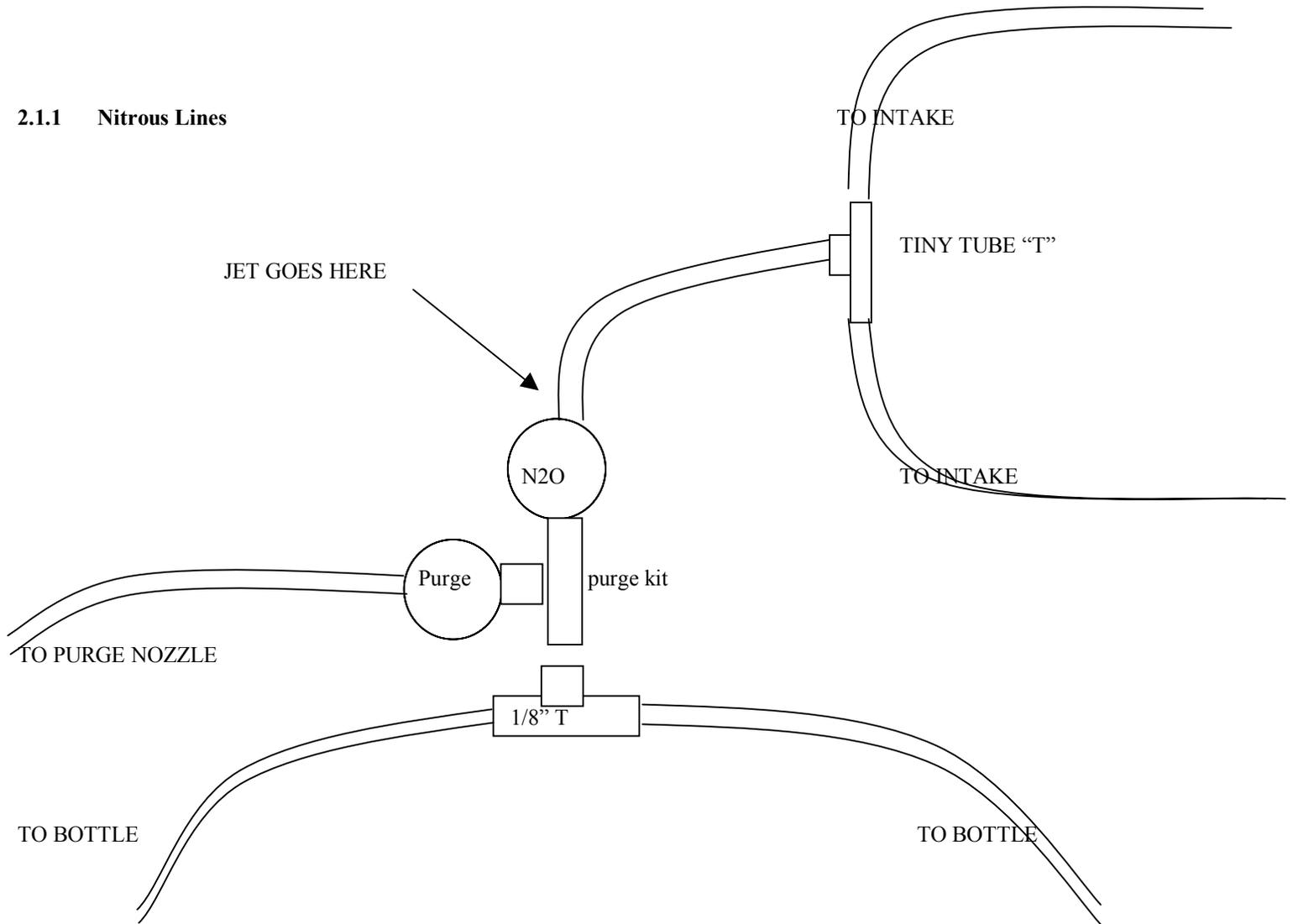
- 1) Disconnect your feed line to your existing nitrous systems solenoid (At the solenoid, make sure bottle is off and no pressure is in the line).

Note: Use Teflon paste on all "NPT" threads as tape will cause problems if it breaks off and get caught inside solenoids or jets! Do not use paste on "AN" compression fittings.

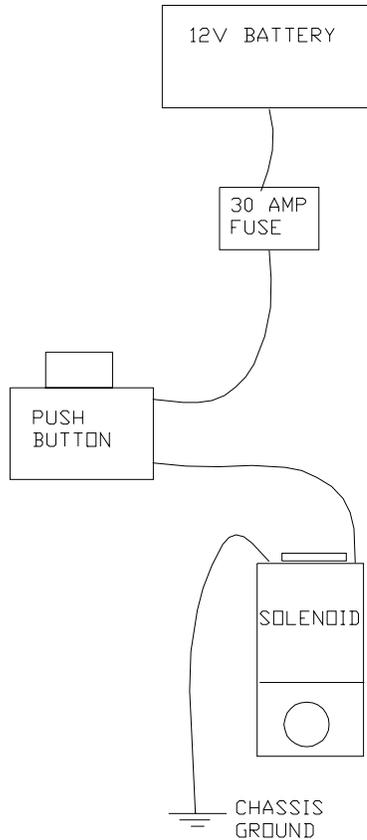
The DynoTune purge system comes partly assembled to show typical installation configuration but it will vary from system to system.

- 2) The goal is to tap into the nitrous feed line just before your existing systems solenoid. Assemble the 1/8" NPT union into the Nitrous Purge solenoids "IN" port. Assemble the other end of the 1/8" NPT union to the long flow-through adaptors side hole.
- 3) Install the plastic purge tube compression fitting into the DynoTune nitrous purge solenoids "OUT" port.
- 4) Attach the female end of the purge assembly onto the blue male fitting located on the inlet port of your nitrous systems solenoid. Make sure you have the Nitrous purge assembly facing the direction you want! Leave room to attach the purge tubing.
- 5) Blow the dust out of the main feed line by cracking the bottle open a tiny bit. Have a friend hold the line with a glove being careful as nitrous can burn.
- 6) Attach the main feed line to the purge assembly.
- 7) Install the purge tube as follows: remove the nut on the compression fitting being careful as there may be a brass compression feral inside that will be loose!
  - a. Install the nut over the plastic purge tube.
  - b. Slide the brass feral all the way into the plastic purge tube.
  - c. Tighten the nut firmly. If the nut is not tight the plastic purge tube may blow off during the purge, as there is a lot of pressure and flow out the plastic purge tube.
- 8) After everything is checked and tight, slowly open the bottle and allow nitrous to enter the system. Check for leaks at all joints and repair if leaks are found.
- 9) Route the plastic purge tube to the location of your choice. Make sure it is securely fastened down, as the high pressure during purge will make the plastic purge tube act like a loose fire hose!
- 10) Wire the Purge system as shown below, use the wiring diagram that best fits your skill level.

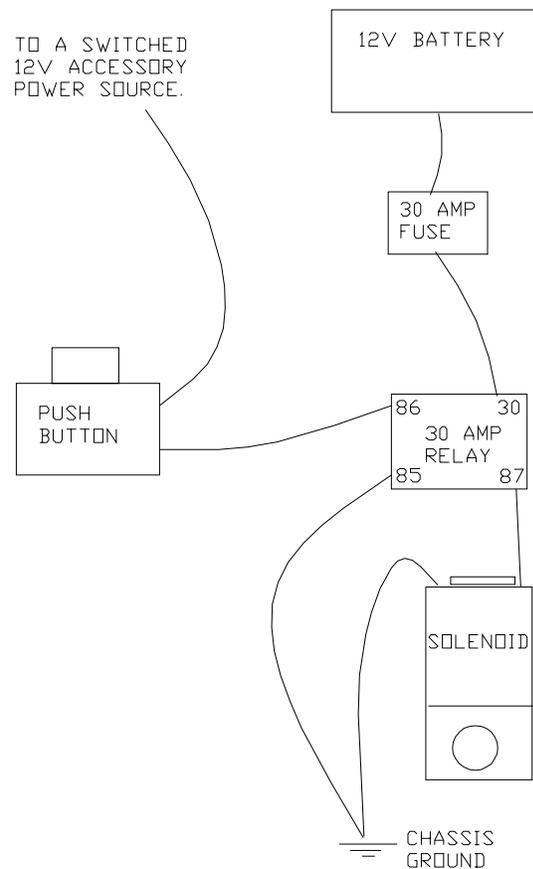
2.1.1 Nitrous Lines



## TYPICAL INSTALLATION



## ADVANCED INSTALLATION



11) You're ready to test your new DynoTune Purge system, press the purge button and verify that you can see the Nitrous come out in liquid form. Once liquid nitrous comes out the plastic purge tube you're ready to rock! Make any adjustment to the plastic purge tube at this time, verify that it is secure and remember, Nitrous burns so watch your shin and eyes!!

Note: Most Nitrous systems are designed to operate at 900-950PSI bottle pressure, excessive pressure can damage solenoids or cause dangerous conditions so please keep that pressure in check!!

### **Installation Guidelines for Solenoids**

Nitrous solenoids need to have Nitrous flowing through them to keep them from burning out. They can draw up to 20amps and will create lots of heat. Do not let them turn on without nitrous flowing through them for more than 10 seconds or the coils will melt and the fuse will blow. Do not turn them on for more than 30 seconds even if nitrous is flowing to keep them cool! If you cannot follow these guidelines email us and we can tell you how to avoid these issues. Do not mount the solenoids directly to the intake manifold or engine; it must be isolated from the heat. It is recommended you use at least 16 AWG wire! If the wires run a long ways use 14AWG wire! Do not use any toggle switch in line with the solenoid as they can melt due to the high current going through them. Nitrous Burns and Gasoline is flammable so be careful! And yes to your question, All Nitrous solenoids are designed this way because of the extreme nature of the application. Mount your solenoid in a cool temperature location! Extreme pressure will kill your solenoid seal so do not even open your bottle if it has been sitting in the sun!

## Nitrous Solenoid plunger Disassembly and inspection

- 1) Close the valve on the nitrous bottle.
- 2) Empty the main nitrous supply line.
- 3) Remove the main nitrous supply line.
- 4) Remove the retaining nut from the nitrous solenoid and remove the coil and housing. Note any shims.
- 5) Unscrew the stem from the nitrous solenoid base. Do this by double nutting the stem; do not use pliers as this will damage the stem!
- 6) Remove the stem, spring and plunger from the solenoid base.
- 7) Examine the plunger seat for swelling. The seal surface should be flat, except for a small circular indentation in the center of the seal.  
A fuel-contaminated seal will protrude from the plunger and be dome-shaped. A fuel-contaminated seal may return to its original shape if left in the fresh air over several days. A seal, which is flat, but protrudes from the plunger body has probably failed internally and should be replaced.
- 8) Re-assemble in reverse order.

