



**BoonDocker Synergy Series™  
Adjustable EFI  
Snowmobile  
Installation and operation instructions**



**Before you begin, please read all the instructions below and check kit contents.**

**Kit Contents:**

Quality check by: \_\_\_\_

- \_\_\_ 1- Synergy Series™ Nitrous Regulator
- \_\_\_ 2-5-hole Synergy Series™ Nozzles
- \_\_\_ 1- 1/8 NPT x 1/8" x 1/8" compression "T" for regulator
- \_\_\_ 2- 1/16 NPT x 1/8" compression fittings for manifolds
- \_\_\_ 2 -Poly line 2 20"

**IMPORTANT - PRODUCT REGISTRATION:** Please register this product online as soon as possible (if you do not have internet access, please call us at 208-542-4411). It is required that you register this product so you can receive technical support, warranty claims, and so you can keep informed of product updates.

To register, go to [www.boondockers.com](http://www.boondockers.com), select "SUPPORT" then select "PRODUCT REGISTRATION". Please complete the on-line form. Be sure to enter the serial number (SN) that is displayed when the Control Box is first powered on (refer to instructions below).

## I. Theory of Operation:

With Synergy Series™ technology it is now possible to regulate, and maintain, a consistent nitrous pressure to the nitrous manifold. This is accomplished by regulating the maximum nitrous pressure, to a range below cold bottle pressure. This allows the nitrous system to perform consistently, regardless of bottle temperature, and pressure.

Consistent nitrous pressure is achieved with one of two Synergy Series™ nitrous regulators. A fixed (non-adjustable) regulator delivers a consistent maximum nitrous pressure to the nitrous manifold. The amount of nitrous (horsepower) delivered to the engine with a fixed regulator, can be adjusted by changing the nozzle size in the nitrous manifold.

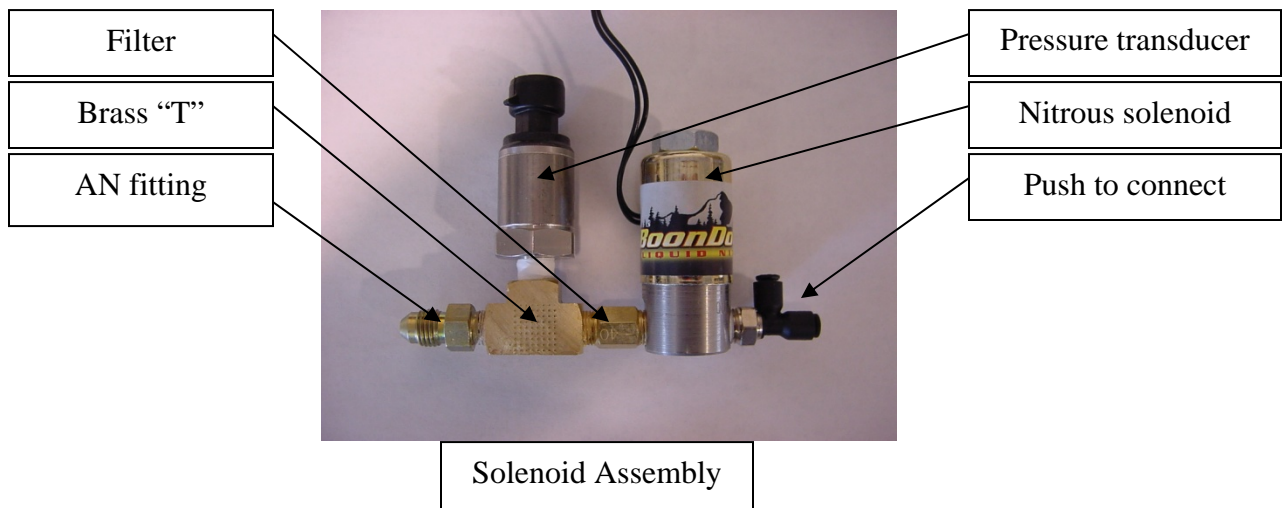
An adjustable nitrous regulator delivers a consistent maximum nitrous pressure when adjusted at the highest setting. This pressure can then be adjusted from maximum to zero pressure and any pressure in between by simply turning the knob on the end of the regulator. This allows the tuner to adjust the amount of nitrous (horsepower) delivered to the engine by turning the knob on the regulator.

The Synergy Series™ Control Box can sense regulated nitrous pressure and automatically adjust fuel, according to nitrous pressure. The Control Box also knows throttle position and engine RPM. Using this information the Smart Activation™ Control Box can activate the nitrous solenoid at precisely the right time.

## II. Regulator Installation:

### A. Disassemble solenoid assembly

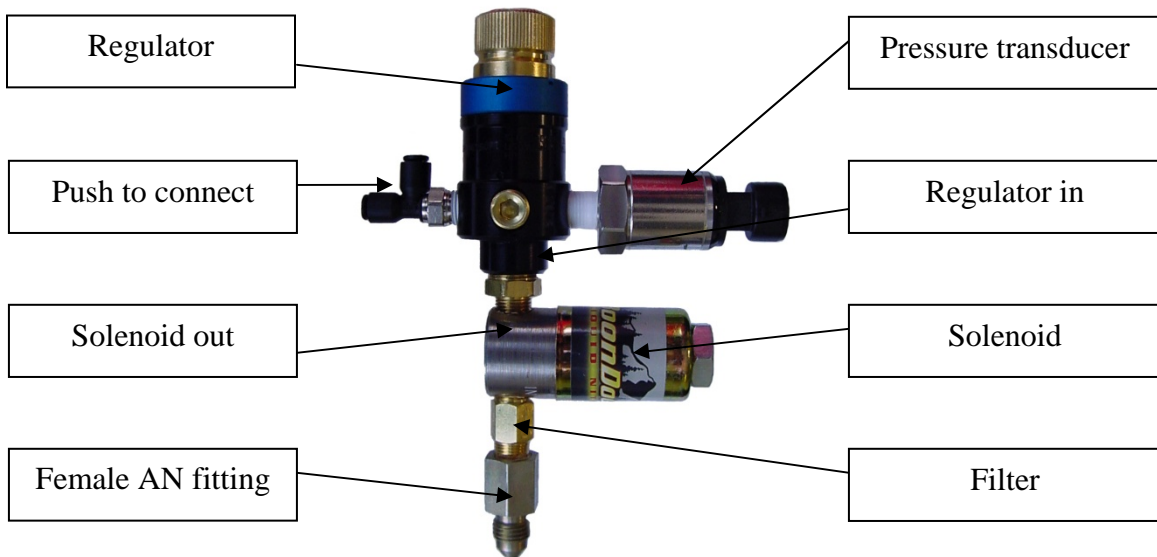
1. Remove solenoid assembly from vehicle:
2. Remove brass “T” and pressure transducer from filter on the inlet side of nitrous solenoid.
3. Remove pressure transducer from brass “T”.
4. Remove push to connect from the outlet side of the nitrous solenoid.



### B. Reassemble solenoid assembly and regulator

1. Install solenoid outlet to regulator inlet
2. Install female AN fitting to nitrous filter
3. Install pressure transducer to regulated pressure port on regulator (port with the small hole at the top of the port)
4. Install push to connect to outlet port on regulator (port with the large hole at the top of the port)
5. Install solenoid-regulator assembly on vehicle (you may want to relocate the solenoid-regulator assembly for ease of adjustment)

**Note:** Use teflon tape on all threaded fitting. **Be sure tape is applied to outside of threads only!** Keeping tape out of the inside of the system will prevent it from plugging up.



### III Update Nitrous Manifold:

1. Remove manifold(s) from air box
2. Remove old black nozzle(s) from manifold(s)
3. Install new white nozzle(s) in manifold(s) (make sure o-ring stays in place and do not over tighten nozzle, just snug is good)
4. Install manifold(s) back in to air box



Old Black Nozzle



O-Ring



New White Nozzle

## IV. Using Your Synergy Series™ Adjustable Regulator:

Once your Synergy Series™ adjustable regulator and updated manifold(s) has been installed, you will be ready to test and tune your upgraded nitrous system. Use the following procedure to properly tune your nitrous system.

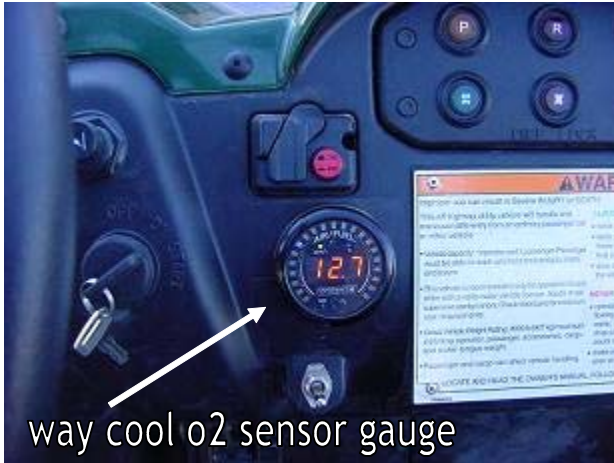
- A.** Adjust your regulator to the off position by turning the knob to the right (be sure not to over tighten the knob and damage the regulator). Then turn it back to the left ½ turn. This is the best position to start testing you nitrous system.
- B.** Test you nitrous system and adjust the BoonDocker Control Box accordingly (you may want to refer to the tuning section of your BoonDocker Control Box instructions).
- C.** Once you have verified the BoonDocker Control Box is tuned correctly, at ½ turn, you can turn the nitrous up. It is recommended that you turn the regulator up in ½ turn increments, checking at each adjustment to be sure the system stays tuned correctly with every adjustment.
- D.** When you have confirmed the nitrous system stays tuned correctly throughout the adjustment range of the regulator, you can adjust the nitrous delivery according to your own specifications.



### **Warning: your new Synergy Series™ nitrous system is capable of delivering more nitrous than your conventional BoonDocker nitrous system!**

The new Synergy Series™ adjustable nitrous system is capable of delivering 70+ horse power, through two updated EFI manifolds. The conventional BoonDocker Nitrous system is only capable of delivering up to 50 horse power, through the original EFI manifolds. ***Some engines may not be able use this large amount of nitrous, without causing engine damage.*** It is up to the tuner to determine how much nitrous any one particular engine can use, safely and effectively. You can limit the maximum amount of nitrous your system is capable of delivering by using selective Synergy Series™ nozzles. If you have any questions or concerns regarding the amount of nitrous you can deliver safely to your engine please contact BoonDocker at [www.boondockers.com](http://www.boondockers.com) or contact your local BoonDocker Dealer.

# Tune with confidence:



way cool o2 sensor gauge

An oxygen sensor and gauge can make tuning your ride on and off nitrous a snap.

- Jet accurately with confidence.
- Fine-tune on and off nitrous for optimal performance and engine reliability.
- Monitor engine on and off nitrous and know you're tuned correctly every time you ride.

(For more information contact BoonDocker)  
(208) 542-4411  
[www.boondockers.com](http://www.boondockers.com)

## Warranty, Terms & Conditions

**Returned Goods** – No merchandise will be accepted without prior approval. A RMA number (Return Merchandise Authorization) provided by Boondocker is required before a return will be accepted. A 20% handling and restocking charge will be applied to returned merchandise. No unauthorized returns will be accepted.

**Limited Warranty** – Boondocker warrants its product to the original purchaser against workmanship defects for a period of 90 days, commencing from the date of product delivery to the Consumer.

**Maximum Liability** – The maximum liability of Boondocker in connection with this warranty shall not under any circumstances exceed the price of the product claimed to be defective.