DDR SERIES SYSTEM INSTALLATION INSTRUCTIONS

Read all Instructions before beginning!!!!

Caution – EXTREME DANGER – Caution
Do not use or mix any other manufacturer's products with any Nitrous Express products.
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THESE INSTRUCTIONS APPLY TO NITROUS EXPRESS PRODUCTS ONLY!
FOR SANCTIONED RACE USE ONLY - NOT FOR SALE OR USE IN CALIFORNIA

READ...UNDERSTAND...AND FOLLOW
these instructions.

CAUTION
Adding a NX Nitrous system to your Power Sport machine is a job best handled by a professional mechanic with nitrous oxide installation experience, Nitrous Express Inc. urges you to seek professional help on all installation procedures.

Absolutely do not mix any other brand components, of any kind, with your NX system. Using non-compatible parts or accessories will void your warranty. Using non-compatible, mismatched parts can create a dangerous or potentially fatal event.

Before starting any installation steps, disconnect the negative battery terminal.

SECTION 1: MOUNTING THE BOTTLE

The bottle should be mounted in the storage area or away from the operator. The best positioning of the bottle is shown in illustration "A". Mounting the bottle in this manner will allow the bottle valve or internal siphon tube to be covered with liquid nitrous at all times and properly supports the bottle. Assemble the brackets on the bottle; refer to the chart below to determine the suggested bracket spacing.

Bottle Size	Distance to Short/Bottom Bracket	Distance to Tall/Top Bracket	Billet Bracket Part Number	Contains Siphon Tube
3.5 Oz	1"	3"	11013P/11017P	NO
7 Oz	1 ¼"	7"	11013P/11017P	NO
10 Oz	1 ¼"	10 ¾"	11013P/11017P	NO
1 LB	1 ¼"	5 ½"	11029P	YES
1 1/4 LB	1 ¼"	6 ½"	11029P	YES
2 LB	1 ¼"	6"	11018P	YES
2.5 LB	1 ¼"	7 ½"	11018P	YES
5 LB	1 ¼"	10 ½"	11031	YES
10 LB	2 ¾"	11 ¾"	11108/11108B	YES
15 LB	2 ¾"	15 ¾"	11108/11108B	YES

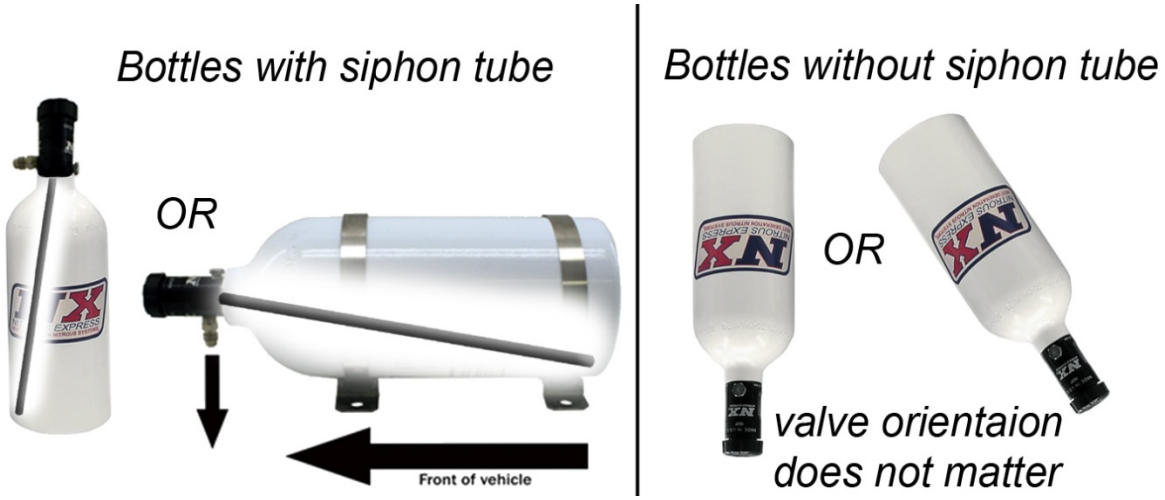
This assembly will serve as a guide to locate the four mounting holes. The bottle brackets should be secured by grade 5 bolts and washers. Before drilling the holes be sure to check for clearance beneath the mounting surface, i.e.: fuel tank, fuel lines, and brake lines. Each dimension given above is from the bottom of the bottle to the center of the bracket, a 10% variance in spacing, if necessary, is acceptable.

Bracket spacing is especially critical when a bottle is mounted on an ATV or motorcycle, or when installed "standing up" (upright position). Bottles mounted with the brackets in or near the middle will oscillate causing metal fatigue resulting in bracket failure. Billet brackets are suggested for installations on ATV and motorcycles, or any vehicles used in rough terrain or where band style clamps allow vibration or oscillation to occur. If band style brackets are used a minimum of two brackets must be installed on systems that use a 7oz bottle or larger. Nitrous Express does not recommend the mounting of

bottles to the swing arm or any portion of the suspension of an ATV or motorcycles. SCTA and BNI require an approved blow down tube (PN 11711P) on all motorcycle installations.

The bottle must be mounted as shown in **"Illustration A".**

ILLUSTRATION A



SYSTEM INSTALL

Remove air box lid and air filter element. Find a location to place the distribution block as close to the center of the throttle bodies from left to right as possible. Secure the distribution block by using either the two mounting holes located in the distribution block or by using the straight threaded end as a bulkhead style fitting, capturing the mounting area in between the two enclosed nuts (see illustration)

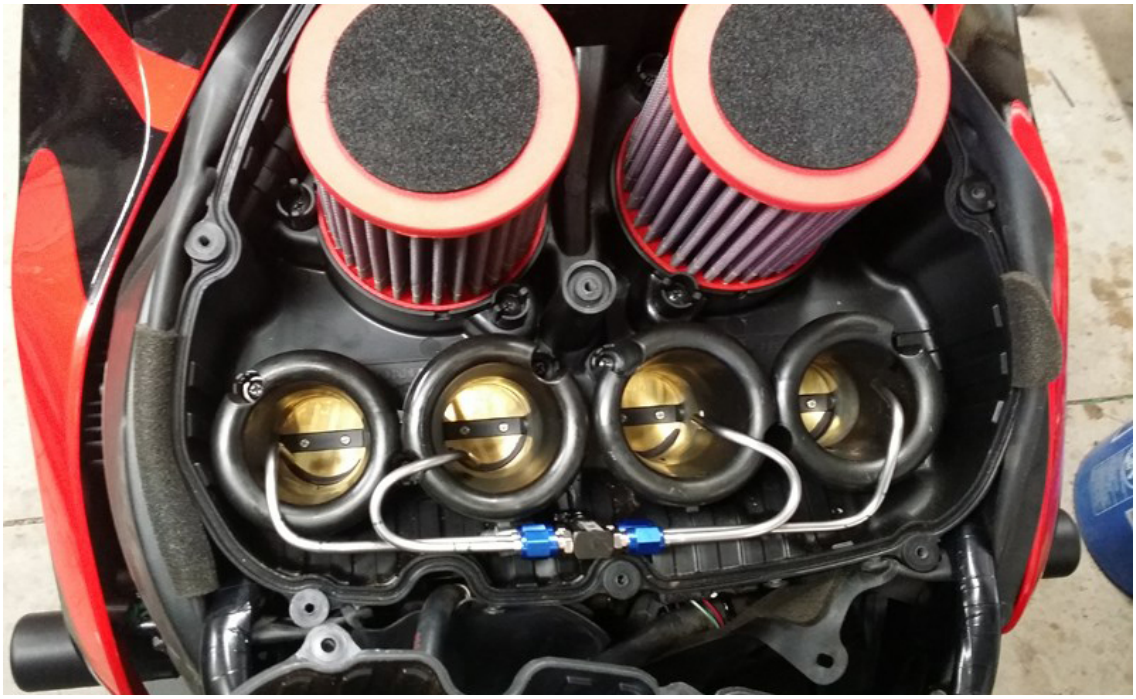
With the distribution block securely mounted, the next step is installing the individual steel tubes in to the distribution block so that it can be bent and cut so the end of each discharge tube is directly over a throttle body. Using the enclosed tubing bender and tubing cutter, shape a discharge tube to go from one of the compression fittings in the distribution block to the center of a throttle body and cut to the correct length. It is very important that the tubes are NOT kinked or bent in to tight of a radius. It is also important that the end of the discharge tubes be cut square and clean and there is no contamination in the tubes prior to installation.

Using the enclosed jet chart, select the nitrous jet for the power level you want , insert it into the threaded end of the distribution block and secure it with the AN-3 braided hose. Route the AN-3 hose to the nitrous solenoid and after installing the outlet fitting with thread sealant into the solenoid (it is the smaller of two fittings) attach it to the outlet port of the solenoid (it is a good idea to make sure the braided lines are clean inside , so blowing them out with compressed air prior to installation is a good idea) Install the larger of two fittings into the inlet port of the nitrous solenoid again, using the included thread sealant(this fitting has a screen in it) Attach one end of the AN-4main supply line (it is the larger of two hoses) to the inlet fitting in the nitrous solenoid and the other end to the outlet of the nitrous bottle.

Refer to the enclosed jet chart for the amount of fuel required based on the power level you select.

Installed photos

Lower Airbox

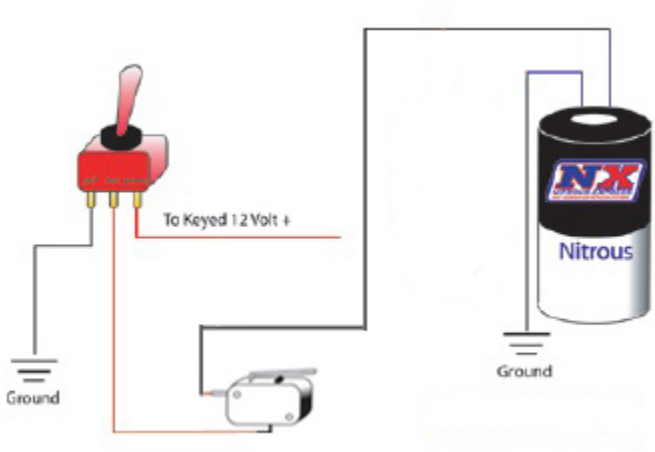


Upper Airbox lid

Jetting Chart

N20 JET	W/HP	FUEL Lb/Hr
22	20	10
24	25	14
26	30	18
35	50	30
41	75	40
52	100	59
62	125	72
67	150	85
70	175	96
78	200	109
136	250	124

Wiring Diagram



TUNING TIPS

Nitrous oxide works well with all applications, 4 cycle, 2 cycle, diesel, and rotary engines. Each one has individual tuning characteristics and these tips apply generally to each one. Nitrous oxide is referred to as a "LIQUID SUPERCHARGER". THE BIGGEST ENEMY OF ANY SUPERCHARGED ENGINE IS DETONATION!!! Detonation can be caused by many things, lean fuel mixture, rich fuel mixtures, inadequate octane fuel, too much ignition timing, not enough ignition timing, or lugging the engine, just to mention a few!

1. Your vehicle engine should be tuned to its maximum power prior to nitrous use.
2. Your ignition system should be at its maximum. A stock ignition will be adequate on most street systems, but for competition use, you must have the very best available ignition components.
3. The stock spark plug may be too hot for use with Nitrous, We have found for most applications the NGK heat range # 9 is usually best. Do not use platinum tipped spark plugs, the spark kernel is to small for nitrous usage and cannot ignite the mixture at the cylinder pressures that nitrous creates. **Since manufacturers specifications on the plugs vary from make and model, call the tech line to find the right plug for your application.**

4. If you are running more than a 35 horsepower boost NX recommends retarding the timing 2 degrees for every 50 horsepower increment, i.e. if you jet your vehicle to 50 horsepower boost then timing should be retarded by 2 degrees, 100 horsepower boost 4 degrees of retard and so on.
5. The NX system is so advanced that huge amounts of timing retard are not required. If adequate octane fuel is used only small amount of timing retard may be needed. Be aware, Excessive timing retard in an internal combustion engine causes increased cylinder temperatures, engine overheating, and over rich fuel conditions.
6. The fuel system must be in top operating condition. Be sure the fuel filter is clean and there are no restrictions in the fuel supply line.
7. The engine should be at operating temperature before nitrous is used.
8. Never "LUG" the engine while using nitrous! Use the system at wide-open throttle only! Never engage the system below 3,000 RPM's. IF you do any of the above, a dangerous "BACKFIRE" condition may result in serious engine damage or physical injury.
9. **Do not attempt to drill or alter the jets or serious engine damage will result.** These items are engineered to their maximum capability. Any modifications you can make will decrease power and hurt engine parts.
10. All NX systems are designed to operate at 1050 PSI bottle pressure. This is extremely important and cannot be stressed enough!!! If the pressure is below this, the system will be rich, if it is above this it will be lean! The bottle pressure can be monitored easily with our bottle pressure gauge (PN 15509P). In cool weather a bottle heater is required (PN 15938P for 2.0lb or 2.5lb bottles or PN 15936P for 1.0-1.4lb bottles). The use of an insulated bottle jacket will allow the heater to work more efficiently and will also stabilize bottle pressure. In extremely hot weather a wet towel or chamois may be placed over the bottle to reduce pressure.
11. A purge valve (PN 15600P or 15603P) is a must on all competition systems and a plus on the street systems, as well. A purge valve is worth about a tenth of a second on a 1/4 mile pass. The correct purging procedures for drag racing is listed here:
    A. Complete your burnout.
    B. Light the pre-stage bulb.
    C. Push the purge button three times, in one second increments.
    D. Stage immediately, go fast!!!
12. If traction is a problem a progressive controller (PN15957P or PN15835P) may be used to reduce tire spin off the line, smoothly increasing power as the vehicle accelerates, eliminating ET robbing traction loss.
13. If there is a question about the purity of your nitrous supply, a filter (PN 15607P) should be used when refilling your nitrous bottle. Contaminated nitrous will cause serious damage to your system components.
14. Periodically check all fittings, connections, and mounting bolts for leaks and tightness.
15. Always turn the nitrous bottle off when not in use, even between runs.
16. Always start with the lowest power setting in your system. Start out small and work your way up, NX systems produce more "REAL" horsepower than any other on the market today!
17. If you run a 35+ HP system it is recommended that you run the highest motor octane racing fuel available. Here are some tips to help you choose fuel for your bike:

A. The relevant number to look at when choosing a racing fuel is the "MOTOR" octane number or MON, the research octane number is not a reliable gauge of fuel octane level.

B. Never store your fuel in a vented container; never store your fuel in white fuel jugs, or in direct sunlight. If you must use plastic, use only dark colors. Sunlight will oxidize the lead out of racing fuel. Lead is what makes it high octane. A steel "JERRY" can is the best.

C. Do not leave your racing fuel stored in the motorcycle tank. Keep it in a sealed, airtight container off the floor.

D. NEVER USE AVIATION GAS!!!!!

Instant engine damage will be the result! The specific gravity of avgas is very light and it is not formulated to operate in non-aircraft engines.

E. Never buy racing fuel from a vented container, or from an underground tank. Buy from a sealed drum only.

IN CONCLUSION

This instruction sheet and power tuning tips are valid for NX systems only. If you have a kit from another manufacturer this information will not help you. The instruction sheet from another manufacturer's kit will not help you with the NX system! If you need help call your dealer or the factory tech line.

DO NOT MIX ANY COMPONENTS FROM ANY OTHER MANUFACTURER, THIS WILL VOID ALL WARRANTIES!!!!!