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NXd Diesel Stacker System Instructions

INSTALLATION INSTRUCTIONS

Congratulations on the purchase of your Nitrous Express NXd Diesel Stacker system. You have chosen the finest nitrous system ever. Nitrous Express utilizes only the highest quality components designed for the use of liquid nitrous oxide. To properly utilize these specially designed components and obtain the trouble-free operation that this system is capable of producing, it is extremely important that you read all instructions carefully. Pay special attention to the important notes at the end of the installation steps and the tuning tips listed at the back of this instruction sheet.

All NXd Diesel Stacker systems are designed to operate with stock fuel pumps.

To insure proper system assembly and operation, carefully read the following installation procedures thoroughly before beginning. Use NX thread sealer on all pipe thread connections, DO NOT use any sealer on flare connections, hose, or bottle connections. Use no other sealing compounds or Teflon tape. All threads must be clean and dry, apply only enough sealer to wet the threads, too little is better than too much. Excessive tightening of parts is not necessary, snug is enough. If it is necessary to remove a fitting installed with the red NX sealer heat must be applied to release the sealing agent. NOTE: Due to shipping restrictions all NX nitrous bottles arrive empty. Before beginning the installation the N2O bottle should be filled by a NX accredited filling station.

Before starting any installation procedures carefully disconnect the vehicle negative battery cable. If there is any question about this operation consult the vehicle owners manual!

MOUNTING THE BOTTLE

Insert the bottle nipple into bottle nut and securely tighten on the bottle valve. Slide bottle into bottle brackets. Use illustration (A) as a guide for proper alignment. Locate bottle assembly in a mounting area that will provide easy access to bottle valve, for hose connection and bottle removal. Using the bottle unit as a pattern, mark and drill four 3/8" holes. Note: Before drilling holes be sure to check beneath the area being drilled for obstructions, fuel lines or fuel tank. Then secure unit to mounting surface. (Recommended minimum of four 5/16" grade five bolts). Align bottle in brackets so that the valve outlet is pointing downward to the mounting surface (See Illustration A) and tighten the bottle bracket bolts. NOTE: This is VERY IMPORTANT so that the internal siphon tube will pick up liquid nitrous.

ILLUSTRATION A

SOLENOID MOUNTING

1. Remove the air intake manifold. The manifold is retained by four mounting bolts, the air intake hose and clamp and the throttle mechanism.
2. Drill an 11/32 hole in the air intake manifold. Tap the hole 1/8" NPT.
3. The NXD nitrous systems are supplied with a Stage One solenoid valve. The valve is clearly marked "IN" and "OUT" at the two ports. Install the D-4 X 1/8 NPT connector to the "IN" port. The male union must be mounted to the air intake manifold. The solenoidvalve "OUT" port mounts directly to the 1/8 NPT X 1/8 NPT male union. Install all solenoid fittings using the provided liquid red NX thread sealer (NO TEFLON TAPE PLEASE) .
4. After mounting the solenoid valve to the air intake manifold, reinstall the air intake manifold.
5. The bottle-feed line will be attached to the D-4 X 1/8 NPT connector previously installed to the solenoid valve 'IN" port.

ROUTING THE NITROUS FEED LINE

NOTE: Place a piece of tape over the end of the hose to prevent debris from entering the feed line during the routing process.

The D-4AN nitrous feed line may be routed to the engine compartment either through the passenger compartment or under the vehicle. Route the line carefully to prevent the possibility of restricting nitrous flow. If routed under vehicle, locate and drill a ¾ inch diameter hole in a suitable area near the bottle valve for the main line. Starting at the bottle nipple (Do not attach to the bottle nipple yet) route the line to the engine compartment. Following the factory fuel lines is usually the best path. Note: Keep maximum clearance between all moving parts, suspension components and hot engine components, securing the supply line where possible ("Zip Ties" are the best for securing the feed line). Be especially careful of the feed line being near any "HOT" electrical leads, one small spark will destroy the Teflon liner causing a nitrous leak. Before you attach the nitrous supply line to the filter, purge the line of any foreign matter that may have accidentally entered the line during installation. Do so by removing the tape used during installation and blowing compressed air through the feed line. (Have an assistant hold the end of the hose aimed away from the truck and any people. Wearing a glove is recommended). Immediately after the purging operation, connect the main feed line to the N2O solenoid and the nitrous bottle, tighten securely
BE SURE ALL NUTS ON SOLENOID MAGNETS ARE TIGHT!

ELECTRICAL HOOK-UP

1. Mount the toggle (Arming) switch in a location that is within easy reach of and in plain sight of the diver.
2. Using 14-ga. wire and connectors supplied in the switch kit, connect a HOT lead (12 VDC POSITIVE) to the "Power" terminal of the toggle switch. (Use 10 amp in line fuse if desired). This power source must be controlled by the ignition switch (See Wiring Schematic).
3. Connect a grounded wire to the "Ground" terminal of the toggle.
4. The system is furnished with a universal wide-open throttle switch. This WOT micro-switch is designed to work with the universal mounting bracket. It's maximum capacity is 10 AMPS and should only be used to activate low amp draw accessories or in conjunction with a relay.

   A. The WOT Switch must be mounted inside the truck using the accelerator pedal to activate the "Stacker" system.
   B. Assemble the micro-switch on the mounting bracket using the supplied ¾" 4-40 bolts and nuts. The switch can be mounted in several different configurations, select the position you require and tighten the bolts. Do not over-tighten; the plastic micro switch can be damaged.
   C. The mounting bracket is made of easily bendable material and may be formed to any configuration that will allow it to place the WOT switch in the proper location.

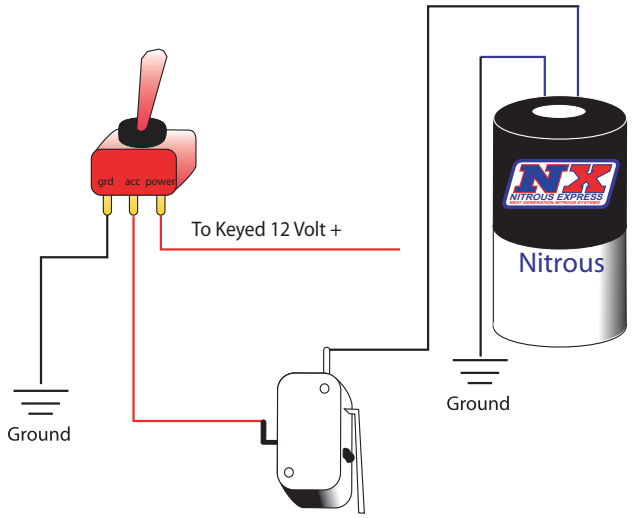
   D. The activation arm on the micro-switch is extra long. This allows you to twist, bend, or cut it to aid in the ease of installation 5. Attach an 18-ga. jumper wire from the remaining terminal "ACC" of the toggle switch to one of the terminals on the wide open throttle switch.

5. Using the 14-ga. wire supplied with the system, connect the remaining wide-open throttle terminal to the wire on the Nitrous Solenoid. (See wiring diagram).
6. Attach the remaining solenoid wire to ground.
7. Reconnect the battery cable.
8. At this point the solenoid should be tested for proper operation. Note: (Be sure the nitrous bottle is off and there is no pressure in the N2O supply line). To test, turn the "arming" toggle switch to the ON position and push the "activating" wide-open throttle switch. A clicking sound should be heard as the solenoid opens. IMPORTANT: Make sure that the solenoid is clicking! If no sound is heard, check all wire connections and the wiring schematic for proper connections.
9. With all components mounted, feed line and electrical connections completed, connect the nitrous supply line to the bottle and FULLY open the bottle valve and carefully check connections on the system for leaks and retighten fittings if necessary.
10. After a complete check and verification of all components of the system for proper installation

and operation it is time to have some fun.

Note: The nitrous solenoid is rated only for intermittent duty. Do not engage this solenoid for more than 20 continuous seconds. Solenoids that have "burned or scorched" electro-magnets will not be replaced under warranty.

WIRING SCHEMATIC



TESTING AND USING THE SYSTEM

All NX systems are designed for off road usage. Use extreme caution and observe all safety precautions (see your vehicles owner's manual). Select a suitable test area; your local racetrack is best. Arm the system with the cockpit N2O arming switch. Gently launch the vehicle, gradually accelerating to wide-open throttle. When WOT is achieved a noticeable surge of power should be produced. If not stop and recheck all installation procedures. Call the factory tech line if the problem cannot be located. Your NX system is now ready for regular usage.

SAFETY TIPS

1. Never permit oil, grease, or any other readily combustible substances to come into contact with nitrous cylinders, valves, solenoids, hoses and fittings. Oil and certain gases (such as oxygen and nitrous oxide) may combine to produce a flammable condition.
2. Never interchange solenoids or other appliances used for one compressed gas with those used for another.
3. Identify the gas content by the label on the bottle before using. If the bottle is not identified to show the gas contained, return the bottle to the supplier.
4. Do not deface or remove any markings, which are used for content identification.
5. Cylinder valves should be closed except when nitrous is actually being used.
6. Notify supplier of any condition, which might have permitted any foreign matter to enter the valve or bottle.
7. Never drop or violently strike the bottle
8. Keep valves closed on all empty bottles to prevent accidental contamination. Open the bottle valve for an instant to clear opening of any possible dust or dirt before usage. Aim bottle outlet away from all body parts. Do not point it in the direction of a person.
9. If there is a question about the purity of your nitrous supply, a filter (PN15610 or 15607) should be used when refilling your bottle. Just attach the filter to your bottle when you take it to be refilled. Contaminated nitrous will cause serious damage to the nitrous solenoids and possibly to your engine. This is a lifetime renewable filter.
10. Your nitrous bottle should be turned off when not in use (even between runs). An NX remote bottle opener (PN 11107) will make this task much easier.
11. If the solenoid must be disassembled for cleaning or rebuilding always use the proper wrench (PN 15921). Do not use any clamping devise on the solenoid tower, instant non-warranty, damage will result.

POWER 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 "Liquid Supercharging" because it, in effect, does the same thing as a mechanical supercharger, forcing more fuel and oxygen into each cylinder, thus producing more power.

1. Your engine should be tuned to its maximum power prior to nitrous usage.
2. Your fuel system is also an integral part of the nitrous system, be sure it is in top shape and all filters are clean.
3. Engine operating temperature should be between 160 and 200 degrees prior to nitrous usage.
4. Never "lug" your engine and hit the nitrous

system, use the system at wide-open throttle only, nitrous should not be used below 16lbs of boost. If you do any of the above a serious "Back Fire" could result in engine damage.

5. The better the exhaust system the better the nitrous system will work.
6. Do not attempt to drill or alter the jets, solenoids, or the tubes in the nitrous plate. These items are engineered to their maximum capability. Any modification you can make will decrease power and destroy engine parts.
7. Do not mix or attempt to match any other brand solenoids with this system. Do not attempt to mix or match any other brand plate or nozzle with this system. Do not attempt to use any other brand kit as a second stage with this system. Our nitrous technology is far superior to any of our competitors. Any attempt at this could lead to serious engine damage.
8. All of our systems are designed to operate at 1000-PSI bottle pressure. This is extremely important and cannot be stressed enough. If your bottle pressure is below 1,000 PSI the system will run rich and will not produce the advertised horsepower. If the bottle pressure is above 1,050 PSI the system will run lean, possibly damaging engine parts. This pressure is easily monitored by using a NX liquid filled pressure gauge (PN 15509). Note: When the ambient temperature is below 97 degrees a bottle warmer is required (PN 15940 or 15941). An NX bottle jacket (PN15945 or 15946) will help stabilize bottle pressure in the winter and summer.

CAUTION: NEVER USE AN OPEN FLAME TO HEAT A NITROUS BOTTLE. THIS IS A VERY DANGEROUS AND POTENTIALLY FATAL PRACTICE!!!!!!!!!!

9. A purge valve (PN15600-15601) is recommended on all NX systems. When the weather begins to get hot a purge valve is worth up to a tenth of a second on a ¼ mile pass. Note: The correct purging procedure for drag racing is: 1. Complete the burnout. 2. Light the pre-stage bulb. 3. Push the purge button three times, one second each. 4. Stage immediately, GO FAST.
10. If there is a question about the purity of your nitrous supply, a filter (PN15610 or 15607) should be used when refilling your bottle. Just attach the filter to your bottle when you take it to be refilled. Contaminated nitrous will cause serious damage to the nitrous solenoids and possibly to your engine. This is a lifetime renewable filter.
11. If the solenoid must be disassembled for cleaning or rebuilding always use the proper wrench (PN 15921). Do not use any clamping devise on the solenoid tower, instant non-warranty, damage will result.
12. If you have trouble with your NX system or any related parts, call your dealer first. If you still need help call the factory tech line 940-767-7694 9:00 AM - 4:00 PM Mon-Fri. We are the nitrous experts and will give straight answers to your questions.

In conclusion…….

This instruction sheet and power tuning tips are valid only for a NX system. If you have a kit from another manufacturer this information will not help you! A tune up from any other brand of nitrous kit will not work with the NX "Next Generation" technology.

DO NOT LISTEN TO:

A. YOUR BUDDY!
B. YOUR BUDDY'S FRIEND!
C. THE LOCAL NITROUS GURU!
D. ANY ARTICLE IN ANY MAGAZINE

If you follow the foregoing suggestions, your NX system will operate trouble free and provide years of thrills. ABOVE ALL REMEMBER TO RACE SAFE AND HAVE FUN!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!