Read all Instructions before beginning!!!!

Caution – EXTREME DANGER – Caution

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

NXL nozzle with Integrated Rail for Honda B16a & Type "R"

INSTALLATION INSTRUCTIONS

Congratulations on the purchase of your Nitrous Express NXL nozzle with "Integrated Rail Technology" System. You have chosen the fi nest, most technologically advanced system on the market. 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 NXL systems are designed to operate with stock fuel pumps, and no timing retards are required. If you have an aftermarket ECU chip that advances the stock timing, detonation could be a problem. These chips can still be retained if higher octane fuel or NX Chemical "X" (PN16003) fuel additive is used. On Dual Stage or EFI Race systems an aftermarket, high capacity fuel pump must be installed. Depending on your combination and level of nitrous boost, tim-ing retard may also be required.

To ensure proper system assembly and opera-tion, carefully read the following installation proce-dures thoroughly before beginning. Use NX thread sealer on all pipe thread connections; DO NOT use any sealant on fl are connections, hose, or bottle connections. Use no other sealing compounds or Tefl on 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 fi lled by a NX accredited fi lling station.

Before starting any installation procedures, carefully disconnect the vehicle's 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. (See Illustration A) 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 fi ve bolts.) Align the bottle in the 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 internal siphon tube will pick up liquid nitrous.

ILLUSTRATION A

REMOVAL OF FUEL RAIL AND INJECTORS

Before any modifi cations are made under the hood, we suggest that you make a diagram of all hoses, wiring and linkages.

First, start by unplugging all sensors and injectors. Remove the large nut on the fuel inlet. Also remove

the fuel pressure hose and the stock fuel regulator, applying a rag to catch any fuel. Then loosen the small 10mm nuts on the fuel rail mounting brackets. Remove fuel rail and injectors. (Note: When the rail and injectors get pulled up and away, do not let anything drop down your injector holes.) Next, pull out the plastic rail spacers. They are not needed since the new system has its own brackets. Finally, remove the injector seals (large thick o-rings) from the intake ports with a screwdriver. Be careful not to lose or tear these parts. After removing injectors, make sure to inspect injector o-rings. Be sure they are still functional, if not then replace with new o-rings.

INSTALLING NXL NOZZLES AND RAIL

First, slide the injector seal spacers into the NXL injectors. (See Illustration B) (The spacers will only be needed if the intake has the thinner injector seals.) (See Illustration C) Next, secure the stock injector seals on top of the spacers and place them into the intake. A small dab of lubricating oil around the NXL o-ring will ease the installation back into the intake manifold. With all injectors installed in the NXL nozzles, place the new fuel rail on top of the injectors. Fit the rail brackets on the rail. Leave the rail mounting bolts a little loose to make the rail assembly slide into place easily. The three 10mm nuts need to be tightened first, then tighten the three rail mounting bolts. (Make sure injectors turn during the tightening steps.)

ILLUSTRATION B

Thin O-ring Thick O-ring O-ring Spacer

ILLUSTRATION C1 ILLUSTRATION C2

ILLUSTRATION C3

Injector in NXL

NXL with Thick O-ring

NXL with Spacer

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 16-foot 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 line 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.

INSTALLING JETS

Take extreme caution when installing jets. Be sure to double check that the correct jets are in the Nitrous (marked N2O) and Fuel (marked Fuel) fittings. (See Illustration D) **NOTE: The NXL system uses extremely small fuel jets and even the smallest amount of debris will clog jets and cause engine damage. Before final installation' use extreme care to be sure that there is no debris or other obstructions in any part of the fuel system, including the jet orifices.**

ILLUSTRATION D

ELECTRICAL HOOK-UP

The NXL comes with a prefabricated wiring harness to eliminate the need for running many wires.
Take the following steps to ensure that your Nitrous system is wired properly.

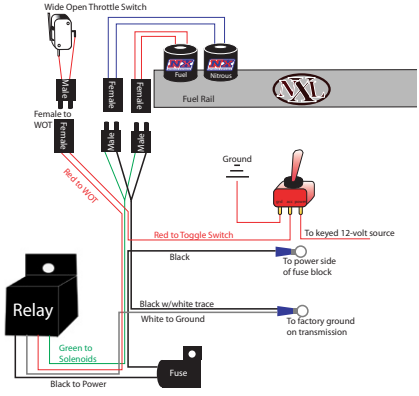
Double check to ensure the battery is disconnected. Crimp female weatherpack connectors onto both the N2O and Fuel solenoids.(See Illustration E). Then crimp a male weatherpack connector onto the wires from the wide open throttle switch. Mount the relay on the front of the passenger side strut tower for the harness to fit correctly. Plug the four wire connector into the relay. Then take the large ring connector with two wires connected to it, (One white wire, one large black wire with a white tracer) and connect it to the factory grounding point on the front side of the transmission. Plug the two male connectors into the female solenoid connnectors. Then plug the male weather pack connector into the female connector on the wide open throttle switch. Find the other large ring connnector with only one wire connected to it. (Large black wire without a tracer) This is the power wire for your nitrous system. Connect it to the positive side of your fuse block. Remove the battery to access the rubber grommet in the fire wall. This grommet will allow you to run your wires safely and cleanly through the fire wall. Take the single red wire and run it through the grommet. For ease of installation, tape another wire to this red wire (this will be the power wire for your toggle) and route them both into the interior of the car. The red wire attaches to the "Accessory" terminal on the toggle switch. Attach the other wire to the "Power" terminal of your toggle switch. You can now connect the remaining wire that was run with the red wire to a keyed 12-volt source.

ILLUSTRATION E

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. NOTE: All vehicles equipped with factory rev-limiters should take extreme care not to over-rev the engine. If the rev-limiter is engaged with the N2O system on, serious engine damage could result. An aftermarket RPM window switch (NX PN# 18959 or PN# 18959M) should be used to disengage the N2O system 200 RPM's before the rev-limiter activates. Your NX system is now ready for regular usage.

WIRING SCHEMATIC



SAFETY TIPS

Do not attempt to start engine if nitrous has been accidentally injected while the engine was not running. Disconnect coil wire and turn motor with throttle wide open for several revolutions before attempting to restart. If it is not possible to disable the ignition, then the spark plugs must be removed and the engine cleared of all nitrous before attempting to start engine.

1. Never permit oil, grease, or any other readily combustible substance 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.

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. The biggest enemy of all supercharged, turbo charged and nitrous injected engines is "DETONATION". The use of higher-octane fuel, and/or a combination of better fuel and timing retard can control this. Remember detonation is a spark plug, head gasket and engine "KILLER".

1. Your engine should be tuned to its maximum power prior to nitrous usage.
2. The ignition is an integral part of the nitrous system and must be able to ignite the mixture under very high cylinder pressures. The hotter the spark the better!
3. In stock engine applications and street usage, the spark plugs should be at least 2 steps colder than stock. Do not use platinum tip, extended tip or any plug with multiple ground straps or split ground straps. When in doubt about heat range, always go one step colder. A spark plug that is too "Hot" will cause detonation, burned plugs, poor performance, and engine damage. In competition engines, always use the coldest plug available. Never use an extended tip plug in a racing engine.
4. The NX nitrous system is so advanced (technology, engineering, and workmanship), that huge amounts of timing retard is not required. You may run as much timing as you normally would if you have the octane required to prevent detonation. We recommend 1 degree timing retard for each 50 horsepower boost as a starting point. Your engine may need more or less depending on your combination.
5. Your fuel system is also an integral part of the nitrous system, be sure it is in top shape and all filters are clean.
6. Engine operating temperature should be between 160 and 200 degrees prior to nitrous usage.
7. Never "lug" your engine and hit the nitrous system; use the system at wide-open throttle only, nitrous should not be used below 2000 rpm's. If you do any of the above, a serious "Back Fire" could result in engine damage.
8. The better the exhaust system, the better the nitrous system will work.
9. 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.
10. 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.
11. 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!!!!!!!!!!

12. 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.
13. 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.
14. If you have questions about the suitability of your torque converter or gear ratios, call the factory tech line for the "inside scoop".
15. 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.
16. Start with the lowest power setting in your system. Don't try to be the track "Hero" on your first pass. Remember: start out small and work your way up: NX systems produce more real horsepower than any other brand on the market today.
17. If the solenoids must be disassembled for cleaning or rebuilding, always use the proper wrench (PN 15921). Do not use any clamping device on the solenoid tower; instant non-warranty damage will result.
18. If you run an NX system of 150+ horsepower, you must use a high octane racing type fuel. These are some tips to help you choose and maintain the correct fuel for your application:
    A. The most important statistic you should look for in the fuel specifications is the "MON" or Motor Octane Number. In most cases, the higher the number the more timing you can run, and detonation will not be a problem.
    B. Most V-8 or V-12 engines with stock compression will run on "93" unleaded pump gas with up to 150 horsepower boost; Most 4 or 6 cylinders with stock compression can use up to 75 horsepower.
    C. Racing engines with 10-1 compression or higher must run racing fuel. The higher the compression, and the higher the boost, the higher the "MON" must be.
    D. With nitrous usage usually the highest "MON" available is the one that should be used.
    E. All NX systems are calibrated to use fuel with .730 specific gravity or "SG". If you use a fuel with a lower "SG" you must use a higher fuel pressure to compensate for the lighter fuel. If you use a fuel with a higher "SG", a lower fuel pressure will be required. Most unleaded pump gas is .730 SG or above.
    F. Racing fuel should be stored in an airtight, dark container. Exposure to atmosphere allows very important elements to evaporate, lowering the octane of the fuel. Sunlight oxidizes the lead contained in racing fuel, since this is the most important ingredient used to raise octane it must be protected.
    G. Never leave the fuel in your car between race days. This allows evaporation of the very important "High end" hydrocarbons and lowers the octane of the fuel.
    H. Never buy racing fuel from and underground or vented storage tank. Always demand to see where and how the fuel is stored, a sealed drum is the only correct way.
    I. AV gas or aviation fuel is not compatible with nitrous usage, don't be tempted by the cheap price, instant engine damage will result!
    J. For a fuel recommendation contact your NX dealer.
19. All vehicles, including full competition race cars, must have an alternator to provide adequate amperage required by today's racing accessories. Add up all the amps required by your car, you'll be surprised!
20. If you notice some of the N2O-fuel orifices are not perfectly aligned in your NX plate system, do not be concerned. This misalignment has been engineered into the system to direct fuel to specific cylinders.
21. 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!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

UNDERSTANDING

HAZARDS OF NITROUS OXIDE

IN AUTOMOTIVE AND RACING APPLICATIONS

USERS OF NITROUS OXIDE MUST UNDERSTAND THE HAZARDS. NITROUS OXIDE:

- MAY CAUSE OR INTENSIFY FIRE; IT IS AN OXIDIZER.
- CONTAINS GAS UNDER PRESSURE, MAY EXPLODE IF EXPOSED TO AN OPEN FLAME.
- MAY DISPLACE OXYGEN AND CAUSE RAPID SUFFOCATION.
- MAY CAUSE DROWSINESS OR DIZZINESS.
- MAY CAUSE FROSTBITE.

NEVER INHALE NITROUS OXIDE OR NITROUS OXIDE MIXTURES EXCEPT UNDER MEDICAL SUPERVISION.

- RACING NITROUS OXIDE PRODUCTS CONTAIN SULFUR DIOXIDE.
- INHALATION OF RACING NITROUS OXIDE PRODUCTS MAY BE HARMFUL OR FATAL.

NEVER APPLY AN OPEN FLAME TO A NITROUS OXIDE CYLINDER

- WHEN FILLING FROM ONE CYLINDER TO ANOTHER.
- TO ENHANCE PERFORMANCE WHEN CYLINDERS ARE IN USE.

FOLLOW REGULATORY REQUIREMENTS AND INDUSTRY STANDARDS WHEN USING NITROUS OXIDE CYLINDERS OR WHEN TRANSFERRING PRODUCT FROM ONE CYLINDER TO ANOTHER (TRANSFILLING)

- ONLY COMPETENT, TRAINED PERSONNEL SHOULD TRANSFILL CYLINDERS.
- TRANSFILLING CYLINDERS CAN BE DANGEROUS.
- ONLY FILL NITROUS OXIDE CYLINDERS BY WEIGHT.
- DO NOT COOL DOWN RECEIVING CYLINDER.
- ONLY USE CYLINDERS THAT ARE DEDICATED FOR NITROUS OXIDE SERVICE. DO NOT CHANGE THE CYLINDER SERVICE TO OR FROM A DIFFERENT GAS.

DO NOT MAKE ALTERATIONS TO CYLINDER OR CYLINDER COMPONENTS

- DO NOT MODIFY PRESSURE RELIEF DEVICE (PRD).
- DO NOT REPLACE, CHANGE, OR MODIFY VALVE.
- DO NOT ALTER, REMOVE, OR COVER PRODUCT LABEL.

FOLLOW SAFE PRACTICES FOR THE STORAGE AND USE OF OXIDIZERS

- SECURE ALL CYLINDERS AND CONTAINERS WHEN BEING USED OR STORED.
- POST NO SMOKING SIGNS IN AREAS WHERE OXIDIZERS ARE STORED OR USED.
- SEPARATE OXIDIZERS FROM FLAMMABLES WHEN STORING.
- STORE AND USE IN WELL VENTILATED AREAS THAT ARE FREE OF COMBUSTIBLE MATERIALS.
- KEEP OIL AND GREASE AWAY FROM CYLINDER AND CYLINDER VALVE.