"HITMAN" FUEL INJECTED APPLICATIONS

INSTALLATION INSTRUCTIONS

Congratulations on the purchase of your Nitrous Express EFI 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 on the back page of this instruction sheet.

You have selected a "Hitman" series nitrous system. It's low cost and simplicity make this system a great horsepower value. However in order to keep the cost of this system to a minimum all convince hardware has been deleted. We strongly recommend that all listed optional components be added to this system before it is used.

The "Hitman" EFI is calibrated for cars with 38-48 PSI injection systems. If your car has a higher or lower pressure fuel system contact the factory for the correct jets. All NX Stage 1 EFI and Hitman 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 Power Booster (PN# 16000) 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, timing retard may be required.

To insure proper system assembly and operation, carefully read the following installation procedures thoroughly before beginning. Use only Teflon based thread-sealing PASTE on ALL pipe thread connections. DO NOT allow sealant to extend past threads. DO NOT use Teflon tape. Thread sealant is not required on any flared fittings, hose or bottle connections.

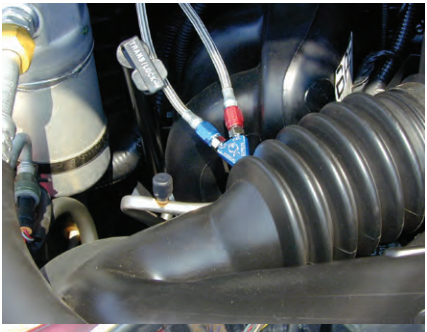
NOTE: Due to shipping restrictions all NX nitrous bottles arrive empty. Before beginning the installation the N2O bottle should be filled by an NX accredited filling station. For filling station locations log on to: www.nitrousexpress.com.

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. (See Illustration A.) Slide bottle into bottle brackets. Use illustration 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.

ILLUSTRATION A



NOZZLE MOUNTING

The location of the nozzle will dictate the location of the solenoids, (limited by the 12 inch nozzle feed lines). The mounting location for the "Piranha" nozzle on factory installed Fuel Injection systems, is in the air inlet tube at a point about 2-6 inches before the throttle body. The actual spacing is not important. Note: It may be necessary to vary the exact mounting point due to space and/or accessory limitations on certain models. The above photos should be used as a guide for proper nozzle location.
Remove the air inlet tube. Drill a 3/16" hole in the location you have chosen for the nozzle placement. This area should be as flat as possible to assure proper sealing of the nozzle.

Using a silicone RTV sealer, apply a thin bead around the nozzle threads. Thread the Piranha nozzle into the air tube and tighten so the nozzle discharge is pointing toward the throttle body.

Choose and insert the 35hp N2O and Fuel jets (REFER TO JETTING CHART) into the nozzle body. (It is always best to start with the lowest horse power setting and work your way up) Attach the blue stainless braided line to the nozzle fitting labeled N2O and the red braided line to the nozzle fitting labeled FUEL. NOTE: Always check each jet for obstructions before using.

ROUTING THE NITROUS FEED LINE

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

The 12-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 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" work best here). Be especially careful of the feed line being near any "HOT" electrical leads a spark will cause a permanent leak in the nitrous feed line.

SOLENOID MOUNTING

1. Install all solenoid fittings using Teflon based sealer (NO TEFLON TAPE PLEASE) at this time. The N2O filter is mounted to the 1/8 NPT inlet side of the nitrous solenoid.
2. The optional solenoid mounting brackets are designed to be universal. Start by mounting the

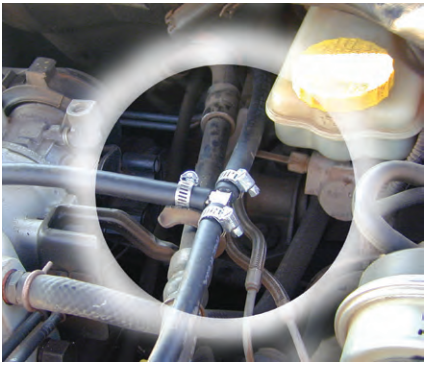
solenoid brackets to the base of each solenoid. Do not tighten! You may have to flip the mounting bracket over to align the solenoid for the proper orientation. Locate a suitable screw, bolt, or stud to mount the solenoids. Choose a location that allows the two nozzle feed lines some slack to prevent any flow restrictions or influence on the nozzle. Tighten all mounting screw and mount locations securely now.

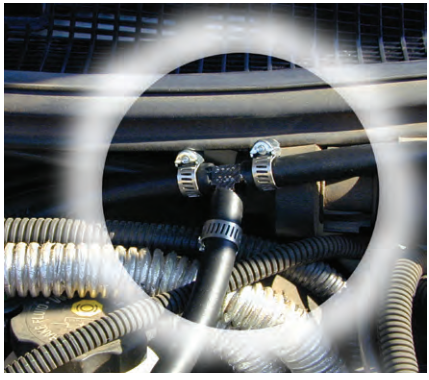
3. Thread the N2O (blue) steel braided line onto the Nitrous solenoid outlet. Thread the Fuel (red) steel braided line onto the Fuel solenoid outlet labeled "Out" or "O". Tighten securely.
4. The bottle-feed line will be attached to the N2O Solenoid. See "Routing the Feed Line". Before you attach the nitrous supply line to the solenoid, 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 car 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, secure tightly.

BE SURE ALL NUTS ON SOLENOID MAGNETS ARE TIGHT!

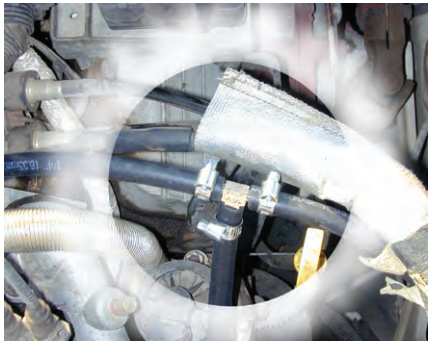
FUEL SUPPLY CONNECTION

To tap into the factory fuel delivery system. Splice into the high-pressure rubber fuel line, between the fuel filter and the injector fuel rail, and install the furnished fuel tee. Use the supplied clamps, tighten securely.





WARNING: The fuel rail and/or fuel lines are under high pressure. Use extreme caution when disconnecting any fuel line. Quickly collect and properly dispose of any excess fuel spillage.



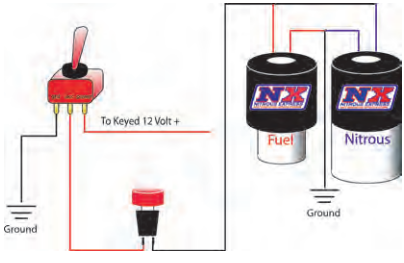
1. Connect one end of the main fuel feed line to the fuel Tee connector and securely tighten.
2. Connect the other end of the fuel feed line to the "IN" fitting of the fuel solenoid and securely tighten the clamp.

ELECTRICAL HOOK-UP

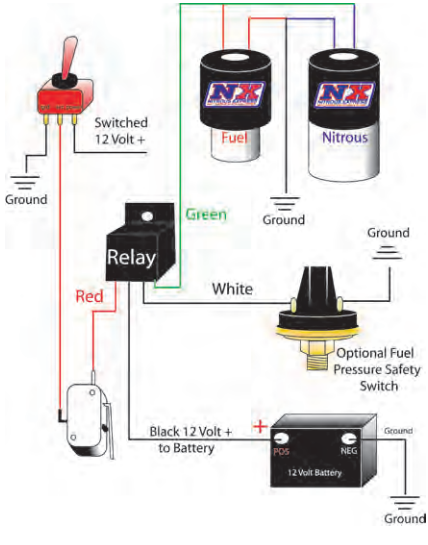
1. Mount the toggle (Arming) switch in a location that is within easy reach of the diver.
2. Using 14-ga. wire connect a switched HOT lead (12 VDC POSITIVE) to the "Power" terminal of the toggle switch. This power source must be con-

trolled by the ignition switch. (Use 20 amp in line fuse if desired). (See wiring Schematic).

3. Connect a grounded wire to the "Ground" terminal of the toggle.
4. Your system is furnished with a Push Button. It is usually mounted within reach of the driver or alternatively under the throttle pedal inside the car. In any case it should only be used at wide open throttle.
5. Attach a 14-ga. jumper wire from the remaining terminal "ACC" of the toggle switch to one of the terminals on the N2O Activation button.
6. Using the 14-gauge wire connect the remaining push button terminal to one wire each of the nitrous and fuel solenoids.. (See wiring diagram).



\WITRING SCHEMATIC



7. Attach the remaining wires from each of the solenoids to a ground. Note: These coils are direct current and it does not matter which wire is used.
8. Reconnect the battery cable.
9. At this point both solenoids should be tested for proper operation. Note: (Be sure the nitrous bottle is off and there is no pressure in the N2O supply line. If you are using a fuel safety pressure switch you must use a jumper wire between the NO and C terminals when testing the solenoids). To do this, turn the "arming" toggle switch to the ON position and push the "activating" switch. A clicking sound should be heard as the solenoids open. IMPORTANT: Make sure that both of the solenoids are clicking! If no sound is heard, check all wire connections and the wiring schematic for proper connections.
10. With all components mounted, feed line and electrical connections completed, FULLY open the nitrous bottle valve and carefully check connections on the nitrous side of the system for leaks and retighten fittings if necessary. With no leaks detected, then start the engine and thoroughly check the fuel connections for leaks.
11. After a through check and verification of all components of the system for proper installation and operation it is time to have some fun.

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 race track 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 activate the nitrous system, 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 NX RPM switch (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

Note: The nitrous and fuel solenoids are rated only for intermittent duty. Do not engage either solenoid

for more than 20 continuous seconds. Solenoids that have "burned or scorched" electro-magnets will not be replaced under warranty.

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 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 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.

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 to "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 (PN11107) 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 devise 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!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!