N-Tercooler 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

CAUTION: An experienced technician familiar with the use and handling of high-pressure cryogenic gases should install this system. If you have any doubt about your skills this system should be taken to a qualified shop for installation. If you have decided to do the install yourself please read and understand all of these instructions before you start. Some of these instructions may or may not apply to your vehicle, if you have any questions please call our tech department 940-767-7694 9:00A.M.-5:00P.M. CST.

Before starting, disconnect the negative terminal on the battery. If you have any questions about your particular vehicle consult a shop manual.

These instructions are divided into 6 sections:

1. **Mounting the Bottle**
2. **Routing the Supply Line**
3. **Mounting the Ring**
4. **Wiring**
5. **Testing the System**

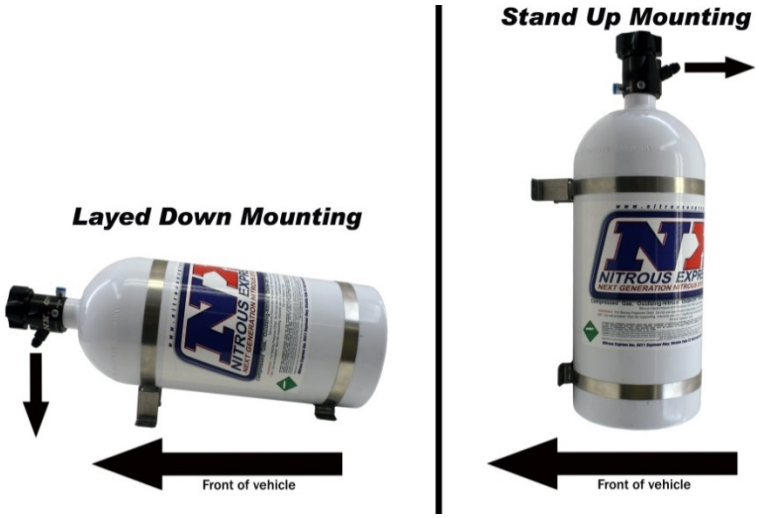
Before starting any installation steps:

1. Never use Teflon tape on any system fittings. Tape debris will cause numerous problems ranging from clogged solenoids to blocked jets. Use the liquid thread sealer furnished with your NX system. A drop is all it takes.
2. Have your nitrous bottle filled by a reliable source, being sure it is filled to the correct capacity with **FILTERED** "NY-TROUS+" nitrous oxide.

MOUNTING THE BOTTLE

The nitrous bottle should be mounted in the trunk area or outside of the passenger compartment. If this is not possible or practical a NHRA approved blow down tube and vent fitting (PN's 11708, 11709) must be installed. The positioning of the bottle should be as shown in illustration "A". This will allow the siphon tube to be covered at all times. The mounting brackets should be assembled on the bottle with the short bracket approx. 2" from the bottom. The long bracket should be place approx. 7" above the lower bracket on 10lb bottles. The upper bracket should be approximately 12" above the lower bracket on 15lb bottles. **Note: Before drilling holes to mount the bottle, be sure to check for clearance beneath the mounting surface i.e.: fuel tank, fuel lines, brake lines, etc.**

ILLUSTRATION A



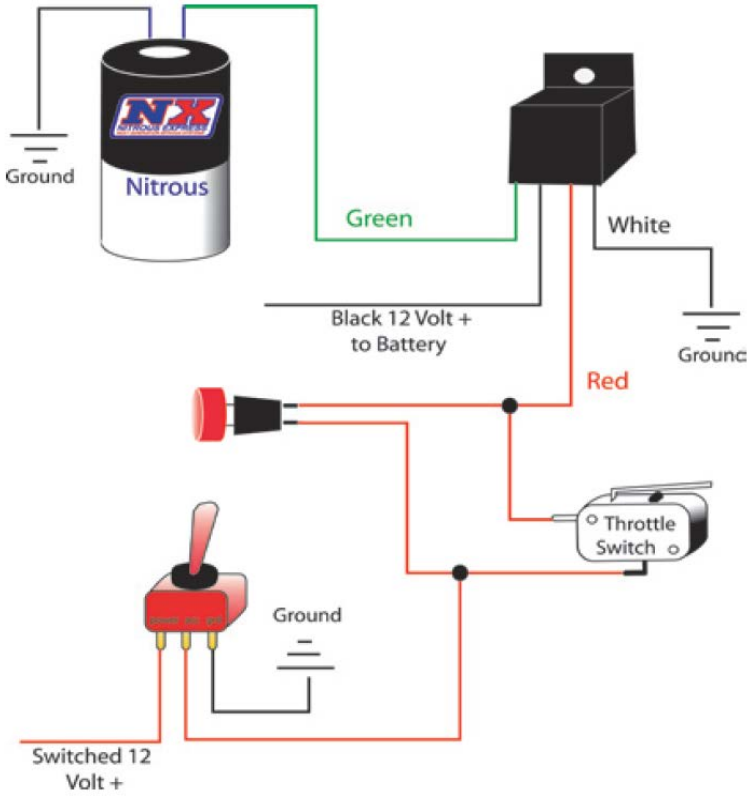
ROUTING THE SUPPLY LINE

To route the supply line, drill a ¾" hole beneath the valve discharge port. Before beginning the routing procedure; place tape over both ends of the line. Now route the line beneath the car being sure to avoid all exhaust, suspension and other moving parts. Following the factory fuel line is usually the safest. Be careful to avoid any positive 12-volt sources, one small spark to the outer braid of the line will destroy it!!! Secure the line carefully, zip ties work best here. Before connecting the line to the bottle, purge the line of all possible debris by carefully blowing compressed air through the line for several seconds. Connect the line to the bottle nipple and tighten securely.

MOUNTING THE COOLING RING

Assemble the solenoid to the cooling ring, the 1/8 NPT discharge port on the bottom of the solenoid mounts directly to the cooling ring. Thread the 1/8NPT x 4AN filter fitting into the inlet port of the solenoid, the supply line will connect here. Teflon based sealant should be used to avoid leaks. Mount the NX cooler ring on your intercooler using the supplied zip ties, do not over tighten, intercooler damage may result. Connect the supply line to the inlet port on the solenoid at this time, tighten securely.

WIRING DIAGRAM



WIRING THE NITROUS SYSTEM

1. Mount the master arming switch within easy reach, and plain sight of the driver.
2. The system is furnished with a universal wide-open throttle switch. This WOT micro-switch is designed to work with the universal mounting bracket. Its maximum capacity is 10 AMPS and should only be used to activate low amp draw accessories or in conjunction with a relay.
3. Assemble the micro-switch on the mounting bracket using the supplied bolts and nuts. The switch can be mounted in several different configurations, select the position your application requires and tighten the bolts. Do not overtighten; the plastic micro switch can be damaged.
4. 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.
5. 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.
6. Follow the wiring diagram above when wiring the system, the relay must be used in all applications.
7. The best power source for the nitrous system is the terminal on the back of the alternator labeled “BAT”, or directly to the “Positive” post on the battery. Do not try to “Splice” into the factory wiring harness for a power supply, this will not have adequate amperage to operate the solenoids. If desired a 40 amp fuse may be installed in this circuit.
8. Solder all connections for a permanent trouble free installation.

Note: The nitrous solenoid is 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.

Testing the System

1. Re-check all installation procedures to be sure nothing has been omitted.
2. Be sure the nitrous bottle has not been opened and the supply line is empty!
3. Using the toggle switch "ARM" the system.
4. Test solenoid operation by using the system activation switch. The solenoid should "Click". If it does not, re-verify all electrical connections and wiring diagrams.
5. Carefully open the nitrous bottle and verify that no fittings or hoses are leaking. Correct any leaks before proceeding.
6. Do not start the engine if nitrous has been accidentally injected while the motor was not running! All nitrous must be cleared from the engine before starting; otherwise a violent intake manifold explosion could occur!
7. Start engine and check for any fuel leaks. Correct any leaks before proceeding.
8. The Nitrous System is now ready for normal usage.
9. All NX systems are intended for off road use only and should only be used in that context.

Additional parts recommended for operating your nitrous system satisfactorily:

- Nitrous Pressure gauge (PN 15508) - STRONGLY RECCOMMENDED
- Purge Valve (PN 15603)
- Bottle Jacket (PN 15945 for 10lb bottle or PN 15946 for 15lb bottle)
- NHRA legal blow down vent fitting (PN 11709)
- NHRA legal blow down vent tube (PN 11708)

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 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.

In conclusion…….

This instruction sheet is 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.