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Read all Instructions before beginning!!!

Harley Soft-Tail (P#62110-2.5P)

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. If there is something you don't understand STOP.... Call the factory tech department for help. MON-FRI, 9AM-5PM PST.

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.

Nitrous Express Inc. instructions are as complete as possible, however every possibility cannot be covered in this instruction sheet, if you have any problem or question, STOP and call the NX tech line for help, 1-940-767-7694.

The installation procedures are divided into four sections. Please pay particular attention to each one.

1. Mounting the bottle.
2. Installing the nitrous plate.
3. Wiring the system.
4. Testing the system.

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 ¼"	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 ¼"	11 ¼"	11108/11108B	YES
15 LB	2 ¼"	15 ¼"	11108/11108B	YES

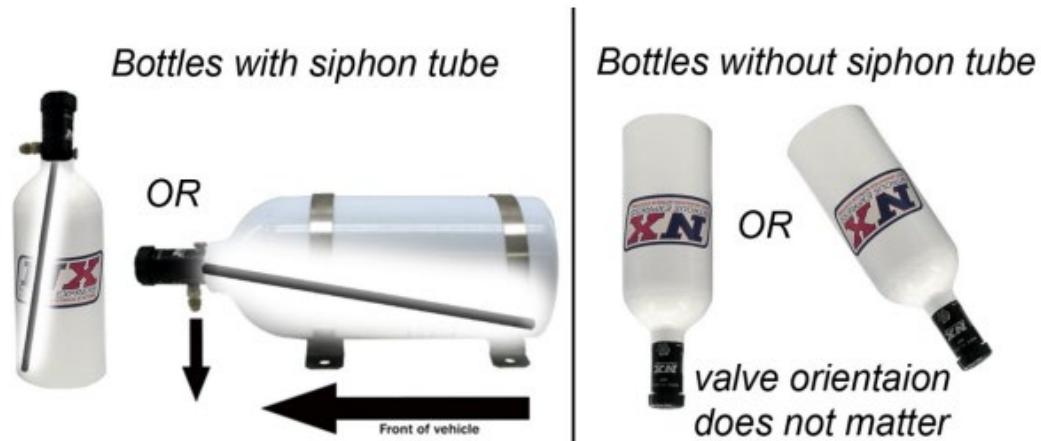
This assembly will serve as a guide to locate the four mounting holes. The bottle brackets should be secured by grade 5 bolts and washers. Before drilling the holes be sure to check for clearance beneath the mounting surface, i.e.: fuel tank, fuel lines, and brake lines. Each

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".



INSTALLING THE NITROUS PLATE



1. Before any modifications are made, we suggest that you make a diagram of all hoses, wiring, and linkages.
2. Remove the air cleaner.
3. The nitrous plate should be installed between the air cleaner and the throttle body. Using supplied gasket, reinstall the air cleaner and torque the provided hardware to factory specs.
4. Select the horsepower setting that you want to start with, (please see jetting chart on the last page of these instructions) insert the proper nitrous jet in the fitting marked "N2O". (CAUTION: you must always use a back-up wrench when tightening the nitrous, otherwise the jet fitting may break. Failure to use a back-up wrench will void the system warranty!!!)
5. Connect the main feed line to the plate's nitrous fitting. The nitrous fitting can be identified by the "N2O" marked on the top of the plate. NOTE: always check each jet for obstructions before using.
NOTE: Always check each jet for obstructions before using. BE SURE THE NUT ON SOLENOID MAGNET IS TIGHT!
6. It is now time to route the nitrous supply 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. Route the line carefully to prevent the possibility of restricting nitrous flow. Make sure the smaller 3an end connects to the plate and the larger 4an end connects to the bottle. (Do not attach line to the bottle yet) Note: Keep maximum clearance between all moving parts, suspension components and hot engine components, securing the supply line where possible. Be careful of the feed line being near and "HOT" electrical leads, even a small spark will cause a leak in the steel braided line. Before you attach the nitrous supply line to the nitrous 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 the installation and blowing compressed air through the feed line. (have 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, tighten securely.

WIRING THE NITROUS SYSTEM

1. Mount the Master Arming Switch in a location that is within easy reach of and in plain sight of the driver.
2. Using 18-ga. Wire and connectors supplied in the switch kit, connect a key switched HOT lead (12 VDC POSITIVE) to the "Power" terminal of the Master Arming Switch (this is the terminal on the opposite side of the gold terminal). (Use 5 amp inline fuse if desired). This power source must be controlled by the ignition switch.

3. Connect an 18-ga. Grounded wire to the Ground terminal of the Master Arming Switch (this is the gold terminal on the master arming switch).
4. Connect an 18-ga. Grounded wire to the black wire of the TPS Wide Open Throttle Module.
5. Connect the white wire to the TPS Wide Open Throttle Module to the TPS wire on the throttle body.
6. Connect an 18-ga. Wire from the center terminal "ACC" of the Master Arming Switch to the red wire of the TPS Wide Open Throttle Module.
7. Connect the pink wire of the TPS Wide Open Throttle Module to the "red" wire on the supplied heavy duty relay. (See wiring diagram).
8. Attach the white wire of the relay to ground.
9. Using 12-ga. Wire, connect the "Black" wire of the heavy duty relay to the positive + post on the vehicle battery. (If desired a 40 amp fuse may be installed near the battery).
10. Using 12-ga. Wire, attach one wire of the solenoid to the "Green" wire on the relay. Note: Solenoid coils are direct current and it does not matter which wire is positive or negative. Now attach the remaining solenoid wire to a good ground.
11. Reconnect the battery cable.

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

NOTE: On 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. And aftermarket RPM window switch (NX PN#18959) should be used to disengage the N2O system 200 RPM's before the rev-limiter activates.

After a complete check and verification of all components of the system for proper installation and operation it is time to have some fun.

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 rotating the accelerator to wide open throttle. The solenoid should "Click" as you go above 90% throttle. If it does not, re-verify all electrical connections and wiring diagrams.
5. Open the nitrous bottle and check all connections for leaks. With the lines disconnected from the solenoids, crack your nitrous bottle open to allow Nitrous pressure into the system. Check for any leaks that may be present, and tend to any that may exist. If the solenoid itself is not sealing, activate the nitrous solenoids a few times in rapid bursts to seat the plunger in the solenoids.
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 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 using in that context.

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 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. 7
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.

Jetting Chart

HP	N2O
10	14
20	21
30	26
40	31
50	36

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.