Performer RPM Nitrous Systems
For Harley-Davidson Big Twin Evolutions
Catalog #s 71910-71919 & 71932-71933
INSTALLATION INSTRUCTIONS

Please study these instructions carefully before installing your new Edelbrock Nitrous System. Failure to follow instruction will void warranty and may cause damage to parts and/or personal injury. If you have any questions or problems, please call our Technical Hotline at: **1-800-416-8628** , 7:00 am – 5:00 pm, Pacific Standard Time, Monday through Friday or e-mail us at **Edelbrock@Edelbrock.com**. Please fill out and mail your warranty card.

Accessories & Installation Items: Major recommendations are listed below. However, due to the variety of years, makes and models to be covered, please review each part listed in the Installation Items section of the Edelbrock catalog to decide whether more items are required for your specific application than are mentioned in these instructions. See our catalog for details. To order a catalog, call **(800) FUN-TEAM**.

Performer RPM Wet Nitrous Kits
Match with Nitrous Plate and frame Bracket for 12 oz. bottles. (NOT INCLUDED IN THE KITS)

Application	2-lb. Bottle	12-oz. Bottle	Carburetor Application	Part No.
FXR	#71911	#71910	Keihin CV, 40mm/42mm Mikuni, QwikSilver spigot	#7126
Dyna	#71913	#71912	44mm Screaming Eagle, 45mm Mikuni spigot	#71927
Softail	#17915	#17914	S&S “E”, QwikSilver flange-mount	#71928
Twin Cam Dyna	#71917	#71916	S&S “G” flange-mount, Rev Tech	#71929
Twin Cam Softail	#71919	#71918	S&S “D” flange-mount	#71930
Sportster	#71933	#71932	Keihin CV, 400mm/42mm Mikuni, QwikSilver spigot	#71926

DISASSEMBLY

NOTE: Before starting this project, **engine must be in proper operating condition**. This kit can be installed at home but it is highly recommended that the kit be installed by a professionally-trained mechanic. This system will require a high flow petcock, or a dual outlet high flow petcock to be installed in the fuel tank. **(Petcock or fuel tee not supplied in kit.)**

WARNING: To avoid accidental start-up of vehicle and possible personal injury, disconnect the battery cables (negative cable first) before performing any of the following procedures:

1. Remove seat.
2. Drain fuel tank. Disconnect fuel line and plug end of fuel line with 5/16" bolt. For split tanks, use a 1/4" bolt and rubber cap to plug fuel line and opening. Disconnect any wires from tank.

   Warning: Gasoline is flammable and fumes are explosive. To avoid possible personal injury, drain gasoline in well-ventilated area away from fire or flame. Drain gasoline into approved gasoline container only.
3. Remove upper cylinder head motor mount from frame and cylinder head bracket. Do not loosen stabilizer jam nuts.
4. Remove air cleaner cover, filter element and back plate.
5. Remove carburetor.
6. **DO NOT** remove intake manifold.
7. Save all hardware when removing parts, for installation.

Nitrous Jets Supplied

Recommended Baseline Nitrous Jet	Recommended Baseline Fuel Jet
.024	.030
.026	.032
.028	.034

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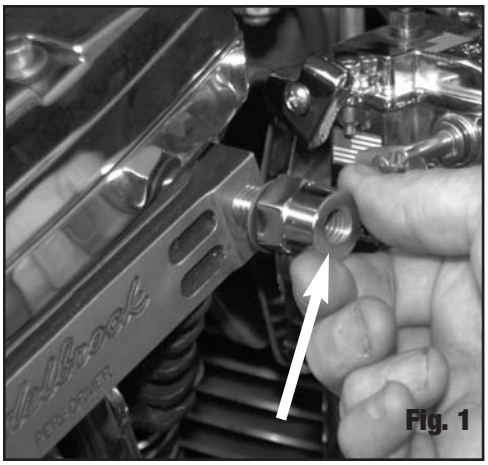
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INSTALLATION INSTRUCTIONS

1. Install jets in nitrous plate, small jet is for the Nitrous and the larger jet is always Fuel. For a baseline setting, we recommend you start with a 26 Nitrous jet and a 30 Fuel jet supplied in kit. There are other jets supplied in the kit. **We recommend the use of the additional jets after proper dyno testing has been done by a trained professional.** The use of other than the baseline jetting is done at your own risk.

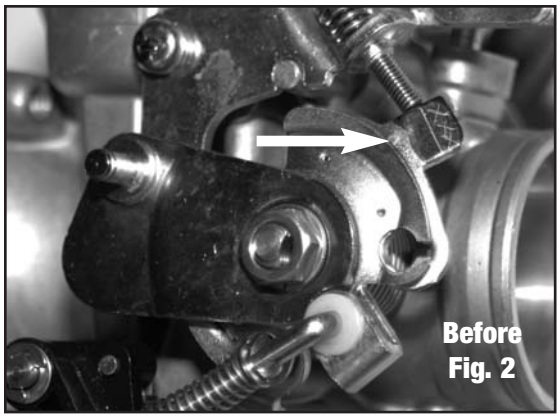


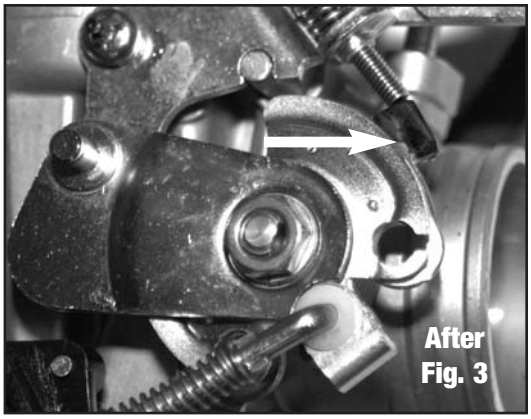
2. Connect hoses to nitrous plate, Red is always Fuel and Blue is always Nitrous.
3. Install Nitrous plate, O-ring side to intake. Red fitting facing toward forward cylinder of engine and Blue fitting toward the rear cylinder.
4. Install head breather spacers supplied in kit. They are designed to compensate for the thickness of the Nitrous plate. This will allow all original carburetor and air cleaner spacers to be installed as originally equipped. The Evolution kits will include the 5/16" thread and the 1/2" thread diameter. The Twin cam kits will have a 3/8" thread diameter. For spigot-style carburetors, there will be an additional .200" steel spacers supplied in spigot spray bar kit. The washers come with three different inside diameters to match the breather type in addition to the head breather spacer ***(See Fig. 1).***


Fig. 1

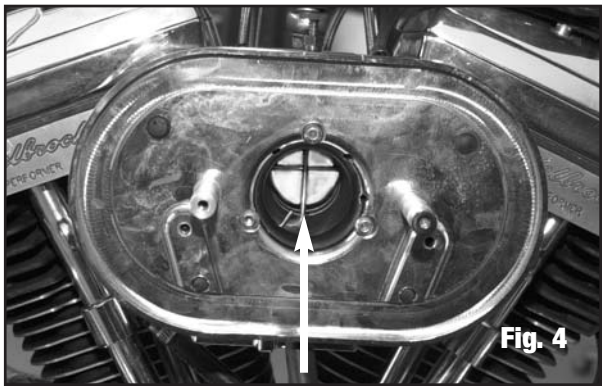
5. When using #71927 and a Mikuni 45mm, the vacuum fittings on the carburetor will not be accessible. The #71927 has a vacuum fitting to replace the blocked off carburetor vacuum sources and a plug that is to be used to plug the vacuum source on the carburetor.

Note: Spigot mount carburetors require modifying the idle speed stop ***(see Fig. 2 & Fig. 3)*** to provide proper clearance. Failure to do so can cause serious damage. Check for proper clearance between spigot spacer and Idle speed stop once installed. Check for proper throttle free play.


Before
Fig. 2

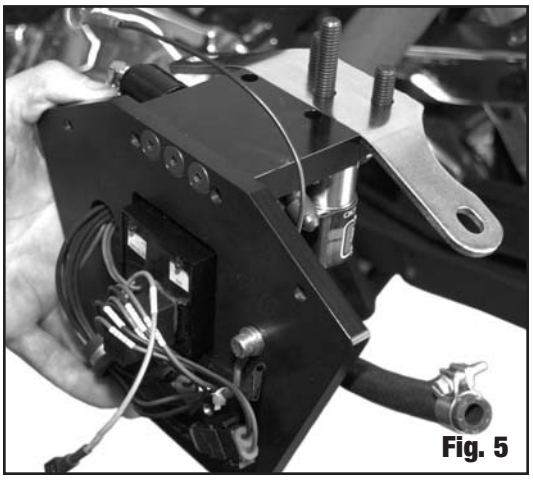

After
Fig. 3

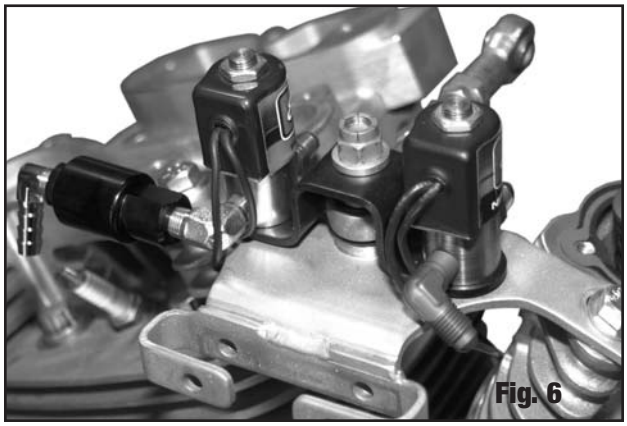
6. Re-install carburetor and backing plate using original parts. Due to the unlimited number of carb and air cleaner combination, minor modification to backing plate spacers may be required. But in our testing, it was not needed. Leave all bolts loose until you have proper alignment of nitrous plate spray bar. Align spray bar in a 9 and 3 o'clock position. Then, tighten carburetor and air cleaner assembly as covered in the your carburetor installation guide provided with your carburetor. Make sure the throttle opens smoothly and does not bind. ***(See Fig. 4).***

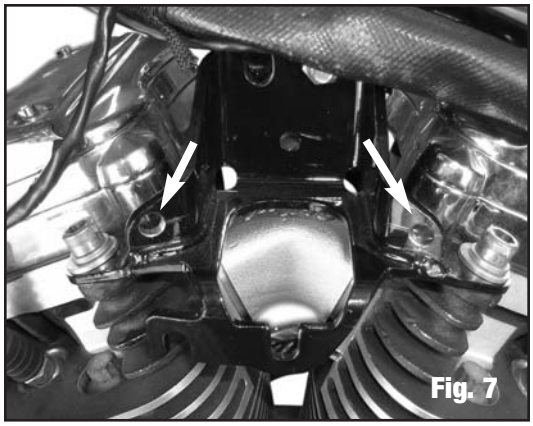

Fig. 4

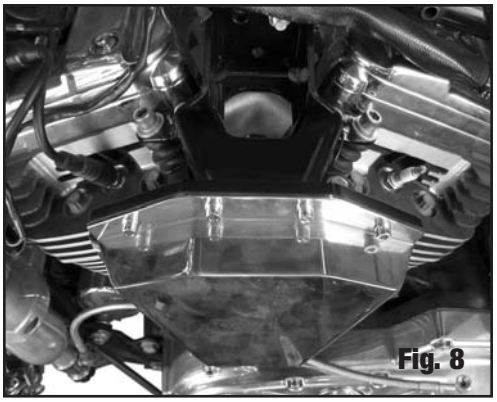
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7. Install Nitrous module housing to engine motor mount ***(See Fig. 5 & Fig. 6).*** Tighten bolts to factory specifications. With the sportster installation, you will need to drill the factory motor mount bracket ***(See Fig. 7)*** using the template printed within this manual (See Tem. 1) and then install the nitrous module housing as shown in ***Fig. 8***.


Fig. 5


Fig. 6

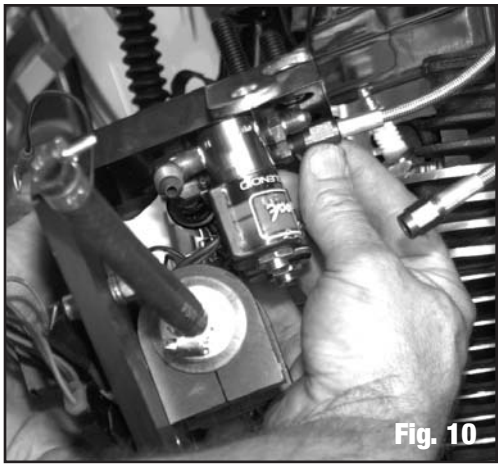

Fig. 7


Fig. 8

8. Install high flow petcock or high flow dual feed petcock to fuel tank. Follow instructions supplied with petcock (not supplied in kit). If you are using a single feed high flow petcock, you will need to install a "T" inline to supply the carburetor and the nitrous fuel pump. ***(See Fig. 9).***

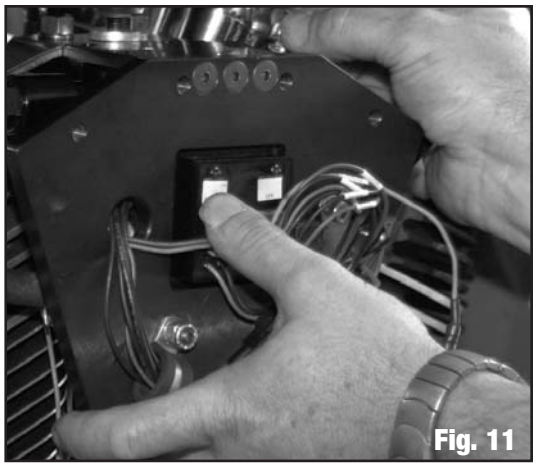

Fig. 9

9. Connect nitrous hoses from nitrous plate to nitrous module assembly. Red to fuel solenoid and blue to nitrous solenoid. ***(See Fig. 10).***


Fig. 10

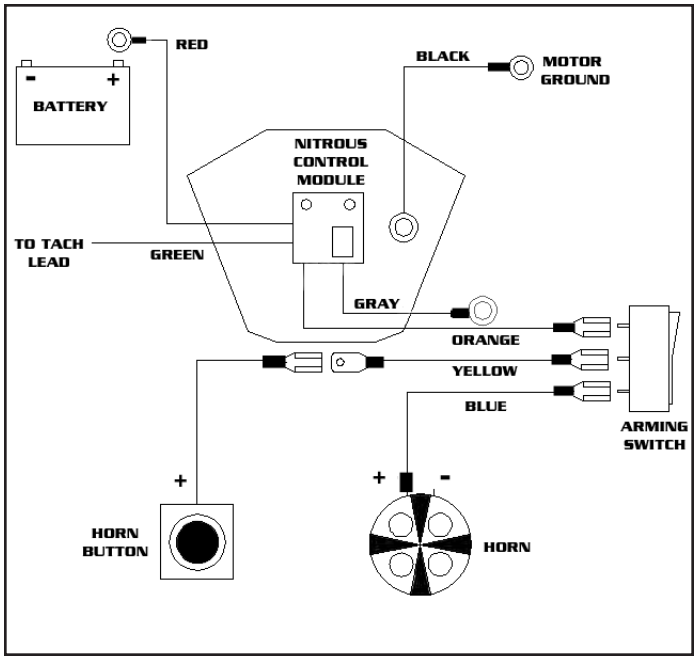
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10. Re-install motor mount assembly. When installing rear cylinder head bolt, attached ground and torque to factory specifications ***(See Fig. 11).*** **(Do not install chrome cover until all testing below has been done).**


Fig. 11

11. Route wiring as diagram below. This is a basic wiring diagram and can be modified to match the bike's factory harness. Make sure wires do not come in contact with any hot part that will cause a short.

Wiring Diagram



Wire Color	System	Origin	Destination
Red	Battery Voltage	Nitrous Module Harness	Battery or Key activated circuit breaker
Black	Module Ground	Nitrous Module Harness	Ground to cylinder head bolt
Green	Tach Trigger wire	Nitrous Module Harness	Factory Tachometer lead or Coil
Orange	System Arming Wire	Nitrous Module Harness	Top Terminal of Arming Switch
Yellow	Horn interface wire	Horn power lead. From Harness 12+ factory Harness lead.	Center Terminal of Arming Switch
Blue	Horn interface wire	Horn power lead. From Horn 12+ Side of Horn	Bottom Terminal of Arming Switch
Gray	Single or dual fire Ignition lead	Nitrous Module Harness	SF* Leave wire end loose and tape or **SF/DF** cut and apply a butt connector. DF* Ground wire to Module plate.

Important Wiring Notes:
*SF is for Single Fire ignition system.
*DF is for Dual Fire ignition system.

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12. Connect fuel lines from dual petcock, one to the carburetor and the other to the fuel solenoid on nitrous module assembly.
13. Attach bottle bracket to frame. On 2-lb. Bottle, it maybe required to remove rear foot peg on most models.
14. Install nitrous bottle and attach hose from nitrous solenoid to nitrous bottle. **DO NOT TURN ON BOTTLE.**

    NOTE: Bottle must be installed valve side down for proper operation.
15. Test system:

    Wiring Test: Turn ignition switch to the "On" position, turn module switch to "On" position (depress switch button to orange wire side). The module light is lit up when you depress the horn button. Turn module switch off and test horn operation.

    System Test: Start engine and warm up. Switch module to "On" position, depress and hold the horn button and look at the armed light and rev motor up to 4500 + rpm (make sure nitrous is off). The "On" sensor will light when the fuel solenoid activates. Engine RPM will drop. Then release button to prevent fuel flooding. This tells you the whole system is operating properly and is ready for use.

Important Note: Do not use nitrous when bike is not being ridden or tested on a dyno. Running nitrous at a stand still can cause damage to the engine *(See Fig. 12).*

16. **Before riding, make sure throttle cable operation is smooth and no binding. Check fuel level, check all connects electric and fuel. Make sure bottle is full before using. Start engine and check for any fuel leaks making sure engine is operating properly, as noted in the Disassembly Section on page 1.**

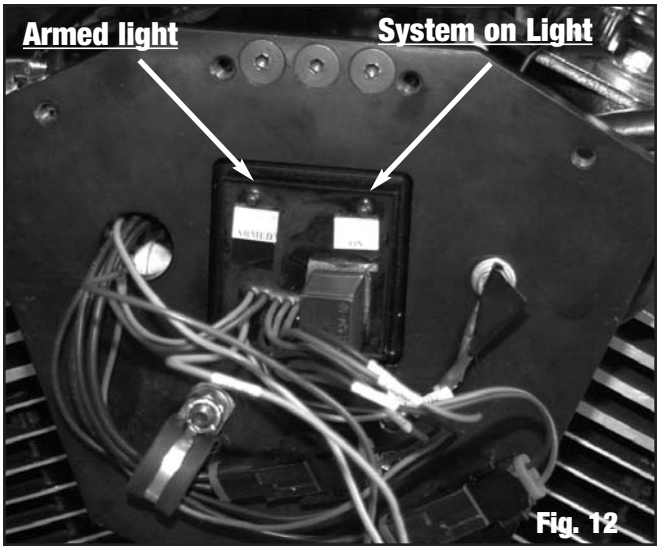


Fig. 12

WARNING

System will stay armed as long as you hold the Horn button on. So you must release the Horn button. When the button is depressed, the engine rpm will increase very quickly so a tachometer is recommended. Always turn off Module switch when system is not in use. Some ignition systems have Rev limiters that short out the ignition systems. This is not recommended when Nitrous system is being used. It is not recommended for most engines to exceed 6000 rpm. Check with a trained professional.

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BOTTLE AND BRACKET INSTALLATION

FOR DYNA BOTTLE BRACKET:
Remove primary side passenger foot peg. Install supplied bracket as seen below. (Bracket and hardware supplied with complete kit).



FOR DYNA BOTTLE:
Install bottle to bracket as seen below. **Bottle must be installed with the bottle valve down to work properly.**



FOR FXR BOTTLE BRACKET:
Install supplied bracket as seen below. In some cases, it will be necessary to clearance the side cover. (Bracket and hardware supplied with complete kit).



FOR FXR BOTTLE:
Install bottle to bracket as seen below. **Bottle must be installed with the bottle valve down to work properly**.



FOR SOFTTAIL BOTTLE BRACKET:
Remove primary side passenger foot peg. Install supplied bracket as seen below. (Bracket and hardware supplied with complete kit).



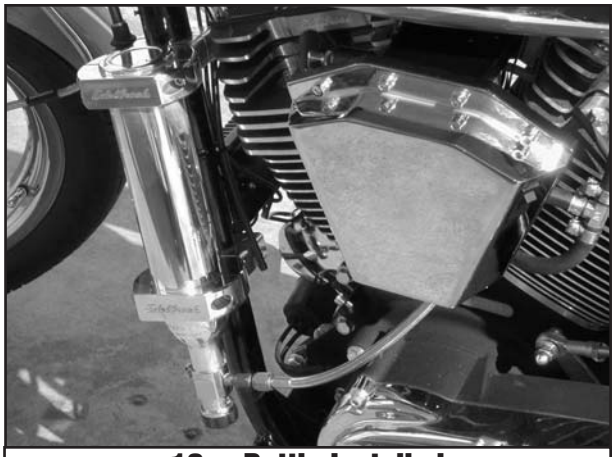
FOR SOFTTAIL BOTTLE:
Install bottle to bracket as seen below. **Bottle must be installed with the bottle valve down to work properly.**



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Thank You….
…for purchasing an Edelbrock Nitrous Oxide Injection System.

Nitrous Oxide injection is one of the most exciting performance enhancements for the dollar invested on the market today. With the use of nitrous oxide come some important safety considerations. This manual has been written to help you during the installation and use of your Edelbrock Nitrous System. Please read it completely before you install and use your system. Please pay close attention to the safety information at the beginning of each section. The information contained there specifically pertains to each of the components and installation methodologies within the section.



12oz Bottle Installed
This is the common 12oz bottle installation. When installing on a Sportster, make sure the bottle and clamps are rotated couter-clockwise as far as possible to prevent interference with the front fender.

Please take the time to read and understand the following….

By installing your Edelbrock Nitrous System, you indicate you have read this document and you agree with the terms stated below.

It is the responsibility of the purchaser to follow all installation instruction guidelines and safety procedures supplied with the Edelbrock Nitrous Systems. It is also the responsibility of the purchaser to determine the compatibility of the product with the vehicle or the device on which the purchaser intends to install it.

Edelbrock Corporation assumes no responsibility for damages occurring from misuse, abuse, improper installation, improper operation, lack of responsible care, or all previously stated reasons resulting from incompatibility with other manufacturers products and/or systems.

Edelbrock Corporation neither recommends nor condones the use of products manufactured or sold by Edelbrock Corporation for use on vehicles, which may be driven on public roads or highways, and assumes no responsibility for damages incurred by such use.

Edelbrock Corporation assumes no responsibility for damages incurred by the use of products manufactured or sold by Edelbrock Nitrous Systems on vehicles used for competition or racing.

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Safety Steps For Working With Nitrous Oxide

1. Never inhale Nytrous Plus (Nitrous oxide (N_2O) for vehicular use) as continued exposure can cause death. Nytrous Plus has a maximum of 100 parts per million (ppm) of sulfur dioxide and will cause irritation to nose and throat passageways.
2. When working around any high-pressure gas including nitrous oxide, take all precautions to ensure that exposure to nitrous oxide is minimized.
3. Do not vent nitrous oxide to atmosphere in confined spaces. Only vent nitrous oxide in well-ventilated and open areas.
4. Liquid nitrous oxide can cause burns to human flesh so protect all skin in and around your hands, arms and face. Wear safety glasses and rubber gloves to protect from liquid nitrous oxide splatter.
5. When venting down the nitrous system, vent the line down closest to the nitrous bottle.
6. Do not use any form of Teflon tape as sealant on fitting connections. Use only Teflon paste.
7. When washing components, ensure the clean components are completely dry, free of oils, and solvents. Failure to remove all liquids could cause component or system failure.
8. Always turn the bottle off before making any repairs to the nitrous delivery system.
9. To safely release nitrous oxide in a pressurized line:
   a. Position vehicle in a well-ventilated, unconfined space.
   b. Turn bottle off.
   c. Slowly turn the nitrous feed line at the bottle open until you hear a light hissing noise.
   d. Allow the entire nitrous pressure to vent from the line.
   e. Perform your work on the system.
   f. Re-attach the nitrous line to the bottle.
   g. Slowly open the nitrous bottle valve, listening for leaks.
   h. Perform leak checks on all affected fittings and the bottle fitting.

Edelbrock General Warranty

It is the constant endeavor of Edelbrock Corporation to give our customers the highest quality products obtainable. Edelbrock warrants each new product, except Performer Series Carburetor's, Race Division Parts, Tubular Exhaust Systems, RPM Series Mufflers, Cat-Back Systems and Performer IAS Shock Absorbers which are warranted separately, to be free from defects in both workmanship and material for a period of one (1) year from the date of purchase, provided that the product is properly installed, subjected to normal use and service and that the product is not modified or changed in any way, negligence by customer or installer or used for racing or competition purposes.

Our warranty service and repair facility is located at 2700 California Street, Torrance, California 90503. Customers who believe they have a defective product should either return it to the dealer from which it was purchased or ship it directly to Edelbrock along with proof of purchase and a complete description of the problem. The product must be returned freight pre-paid. If a thorough inspection of the product by the factory indicates defects in workmanship or material, our sole obligation shall be to repair or replace the product. Warranty covers only the product itself and not the cost of installation or removal.

Edelbrock Corporation shall not be liable for any and all consequential damages occasioned by the breach of any written or implied warranty pertaining to this sale in excess of the purchase price of the product sold.

If you have any questions regarding a product or installation,
please contact our **Technical Department, toll free at 1-800-416-8628**
from 7:00 am to 5:00 pm, Pacific Standard Time
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