

**A Holley Performance Brand**

## TRANSFER LINE INSTRUCTIONS

**P/N 14300NOS**

**A5094-SNOS**

### WARNINGS

- **Never** directly inhale nitrous oxide. When inhaled in large quantities, nitrous oxide can cause respiratory ailments or in extreme cases, death via suffocation.
- **Never** allow escaping nitrous oxide to contact skin. Nitrous oxide discharges at -130 degrees Fahrenheit. If allowed to contact skin, it will cause severe frostbite.
- **Never** overfill any compressed gas cylinder. Maximum weight that any NOS cylinder should weigh is clearly labeled on the side of the cylinder.
- **Always** wear hand and eye protection when performing nitrous oxide transfer operations.
- **Never** permit oil, grease or any other readily combustible substances to come in contact with cylinders, valves, solenoids, hoses and fittings. Oil and certain gases (such as oxygen and nitrous oxide) may combine to produce a flammable condition.
- **Never** deface or remove any markings which are used for content identification on compressed gas cylinders.
- Nitrous bottle valves should be **closed** when line kit is **not** in use.
- Keep valves **closed** on all empty bottles to prevent accidental contamination.
- **After** storage, open nitrous bottle valve for an instant to clear opening of any possible dust or dirt.
- **Notify** supplier of any condition which might have permitted any foreign matter to enter valve or bottle.
- **Never** drop or violently strike bottle.
- **Do not** overtighten AN style fittings. They can easily be damaged.

### INTRODUCTION

NOS Transfer Line Kit P/N 14300NOS is designed to allow the refilling of nitrous oxide cylinders without the use of a compressed air source (air compressor). Transfer from one cylinder to another is accomplished by creating a pressure differential between the two cylinders, caused by cooling the receiving cylinder.

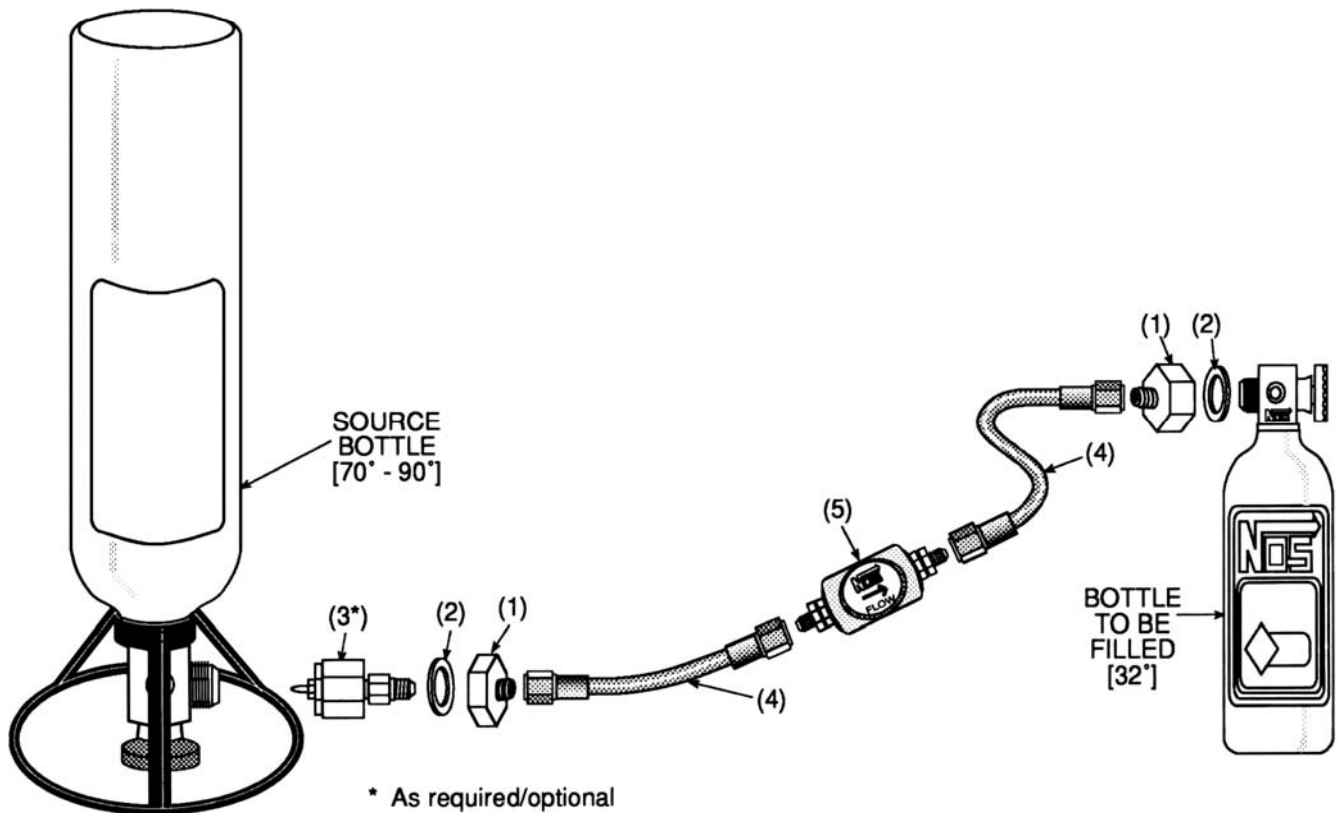
## KIT COMPONENTS

Before assembling and attempting to use your Transfer Line Kit, compare the components you received with those shown in Figure 1 and listed in Table 1. If any components are missing or damaged, contact the NOS Technical Department at 1-866-GOHOLLEY for assistance.

**Table 1 Transfer Line Kit P/N 14300NOS Parts List**

Item	Description	Quantity	NOS P/N
(1)	4AN Bottle Nut	2	16220NOS
(2)	Bottle Nut Washer	2	16210NOS
(3)	CGA Bottle Nut	1	16100NOS
(4)	4AN 8-1/2" Hose	2	15200NOS
(5)	4AN Nitrous Filter	1	15550NOS

**Figure 1 Transfer Line Kit P/N 14300NOS Parts Identification and Exploded View**



## TRANSFER LINE HOOK-UP

**NOTE:** Refer to the comment regarding the operating temperatures for the supply and receiver bottles in Step #1 of the Transfer Line Operation Section before beginning the Transfer Line Hook-Up.

1. Invert the supply bottle. [Only for supply bottles that do not feature siphon tubes].
2. Install the 4AN bottle nut (1) and bottle nut washer (2) on the supply bottle.

**NOTE:** If your supply bottle is not a standard automotive type nitrous oxide cylinder, it may feature a special outlet fitting known as a "CGA 326". Item #3 is a special bottle nut designed for use on this type of thread.

3. Install the 4AN bottle nut (1) and bottle washer nut (2) on the receiver bottle.
4. Connect one end of the 4AN 8-1/2" Hose (4) to the supply bottle.
5. Connect the open end of the supply bottle 4AN hose to the inlet of the 4AN nitrous filter (5).

**IMPORTANT!** Pay close attention to the direction of flow through the nitrous filter. The unit is intended to only flow one way.

6. Connect the outlet of the 4AN nitrous filter to one end of the second 4AN 8-1/2" Hose (4).
7. Connect the open end of the 4AN 8-1/2" hose to the receiver bottle.

#### **TRANSFER LINE OPERATION**

1. Chill the receiver bottle to 32°F for a minimum of one hour. Raise the supply bottle temperature to between 70°F and 90°F.
2. Close the receiver bottle's valve.

**CAUTION! Never use an acetylene or propane torch to heat the supply bottle. Explosive bottle failure can occur.**

3. Open the supply bottle's valve.

**CAUTION! Perform this operation only in a well-ventilated area. Inhalation of large amounts of nitrous oxide can cause respiratory damage and in extreme cases, death by asphyxiation. Be careful not to allow nitrous oxide to come in contact with skin, severe frostbite can occur.**

4. Lightly loosen the 4AN hose at the receiver bottle valve connection. Bleed off the nitrous from the supply bottle until the escaping gas can be seen (white in color). Retighten the 4AN hose connection.
5. Open the bottle valve on the receiver bottle fully.
6. Once the transfer has audibly stopped, close both the bottle valves and disconnect the transfer line.
7. Weigh the receiver bottle. If the bottle has not reached full recommended weight, repeat steps 1 through 4.

**HINT:** If the receiver bottle does not fill completely, check the weight of the supply bottle to ensure that it contains at least 30% of its rated full capacity. Once the supply bottle is depleted below this level, the transfer becomes difficult.

**CAUTION! Do not overfill the bottle. If you do so, once the receiver bottle is up to normal operating temperature, the pressure safety burst disc may rupture and empty the contents of the bottle.**

**NOTE:** The nitrous filter should be periodically disassembled and cleaned.

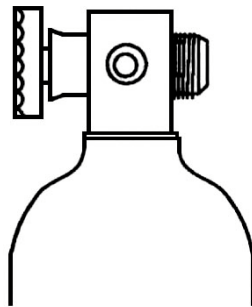
## BOTTLE WEIGHT CHART

The following is a list of the weights of NOS nitrous oxide cylinders.

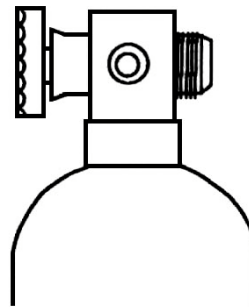
<b>Bottle Size</b>	<b>Weight - Empty (Pounds)</b>	<b>Weight - Full (Pounds)</b>
10 oz	2.0	2.6
2 lb	4.3 or 3.7	6.3 or 5.7
5 lb*	8.3 or 9.7	6.3 or 5.7
10 lb**	15.0, 14.7 or 13.6	25.0, 24.7 or 23.6
15 lb	23.9	38.9
20 lb	27.0	47.0

\* NOS has produced two different weight 5 lb. bottles. Visually they appear the same. Regardless of what the bottle label says, always weigh the bottle completely empty to determine which unit you have before filling.

\*\* NOS has produced three different weight 10 lb. bottles. The radiused neck bottle (6.2 inches in diameter) weighs 23.6 pounds full. The stepped neck bottle (6.2 inches in diameter) weighs 25.0 pounds full. The short, fat bottle (6.9 inches in diameter) weighs 24.7 pounds full.



**Radiused**



**Stepped**

## NOS Technical Support

**Phone: 1-866-GOHOLLEY**

**Fax: 1-270-781-9772**

**For online help, please check the Tech Service section of our website:**

**[www.holley.com](http://www.holley.com)**

**Bottle Refill Info: 1-800-99-REFILL**

**A5094-SNOS**

**Date: 6-11-01**