Vacuum Model Nitrogen Tyre Inflation System Main Features:

- Pump the air from the tyre by the internal vacuum generator *
- Auto-Start Inflation *
- Single Tire Application
- Suit for: Motorcycle, Car, Light Truck

PN-8820 Nitrogen Tyre Inflator Operation Steps

1. Set final target pressure using the + and - buttons. The upper LED screen will show the target pressure.
2. Set the vacuum time using the + and - buttons. The lower LED screen will show the vacuum time.
3. Lift the vehicle to avoid damage to the tyre due to the heavy vehicle weight.
4. Remove the tyre valve core to exhaust the residual air from the tyre, then refit the tyre valve core.
5. Connect air hose to tyre valve stem.
6. Press "START" key.
7. When unit “beeps” and the upper LED screen flashes “END”, tyre inflation is complete.
8. Immediately remove hose.
1.0 Introduction

1.1 This Manual

Congratulation on selecting the tire Inflation Equipment. This equipment has a number of unique features that are explained in this manual.

Throughout the manual the following symbols will be used, this information is for your safety and to prevent damage to this product.

CAUTION
The hazard or unsafe practice could result in minor injury.

WARNING
The hazard or unsafe practice could result in severe injury or death.

1.2 General Specifications *

Hi-flow standard system suitable for serving passenger cars and LGV’s. This model comes with an integral automatic purge and inflate cycle.

Technical data:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Requirement</td>
<td>110/240V/50-60HZ</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>28W</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-20°C/-4°F to 70°C/158°F</td>
</tr>
<tr>
<td>Compressed Air Input Range</td>
<td>87-123PSI/6-8.5bar/600-850kPa</td>
</tr>
<tr>
<td>Nitrogen Purity</td>
<td>95-99.9%</td>
</tr>
<tr>
<td>Nitrogen Output</td>
<td>62L/min(2.2cfm)@131PSI/9bar/900kPa</td>
</tr>
<tr>
<td>Maximum Nitrogen Pressure</td>
<td>116PSI/8bar/800kPa</td>
</tr>
<tr>
<td>Nitrogen storage Tank</td>
<td>55L/14.5gal(US)</td>
</tr>
<tr>
<td>Dimensions(L<em>W</em>H)</td>
<td>720mm*570mm *1330mm/28.4”*22.4”*52.4”</td>
</tr>
<tr>
<td>Packing Size(L<em>W</em>H)</td>
<td>735mm<em>512mm</em>1455mm/28.9”*20.2”*57.3”</td>
</tr>
<tr>
<td>Net Weight</td>
<td>98kg/ 216.1 lbs</td>
</tr>
<tr>
<td>Gross Weight</td>
<td>114kg/251.3lbs</td>
</tr>
</tbody>
</table>

*Note: Specifications may vary for non-standard equipment. Contact service agent for further information.
2.0 Control Layout

A: Inlet of compressed air and regulator
B: Hours run
C: System pressure gauge: Indicate the compressed air inlet pressure
D: Nitrogen pressure gauge
E: Power cable
F: Power switch
G: Automatic nitrogen inflation outlet
H: Compressed air outlet
I: Manual nitrogen inflation outlet
J: 0.7m hose: To the tire
K: Compressed Air inlet & Deflate ball valve
L: Nitrogen inlet & Inflate ball valve
M: Tire pressure gauge: Indicate the tire pressure when the Nitrogen inlet & Inflate ball valve (L) turn off
N: Inflate/Deflate control valve

3.0 Preparation for Use

1. Unpack the carton and identify the components.

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit</td>
<td>1</td>
</tr>
<tr>
<td>Hose with single clip-on open type chuck</td>
<td>1</td>
</tr>
<tr>
<td>Black Clip-on deflator&amp;inflator—Supplied separately</td>
<td>1</td>
</tr>
<tr>
<td>Hose with 2 quick couplers—Supplied separately</td>
<td>2</td>
</tr>
</tbody>
</table>
2. Connect the compressed Air supply to the Inlet of compressed air (A) located in the regulator. The inlet regulator should be set at 123PSI/8.5bar/850kPa

3. Connect the Hose with single clip-on open type chuck to Automatic nitrogen inflation outlet (G) located in the unit.

4. Connect the Manual nitrogen inflation outlet (I) located in the unit and the Nitrogen inlet & Inflate ball valve (L) located in the Black Clip-on deflator&inflator by a Hose with 2 quick couplers.

5. Connect the Compressed air outlet (H) located in the unit and the Compressed Air inlet & Deflation ball valve (K) located in the Black Clip-on deflator&inflator by another Hose with 2 quick couplers.

6. Turn off the Deflation ball valve (K) and the Inflation ball valve (L).

7. Turn on the Compressed air outlet (H), the Automatic nitrogen inflation outlet (G) and the Manual nitrogen inflation outlet (I).

8. Connect the power supply.

9. Press the power switch (F) to turn on the unit. The machine will produce the nitrogen. The Nitrogen Pressure gauge (D) located in the machine will indicate the Nitrogen Pressure in the internal Nitrogen Storage Tank.

10. Check that the Nitrogen Pressure in the internal Nitrogen Storage Tank is higher than 72psi/5.0bar/500kPa. The equipment is now ready to use.

**CAUTION**
To avoid equipment damage. The compressed Air supply must be filtered by filter (5micron) supplied separately which is to filter the oil and water in the compressed air.

To avoid equipment damage, never exceed the maximum inlet pressure.

The filter bowls will accumulate water and oil when the machine is in operation and require regular emptying by means of a manual drain at the base of the bowl (Turn anti-clockwise to open and clockwise to close).

It is important that the filter elements are replaced on a regular basis to prevent water and oil entering the machine.
4.0 Operation

4.1 Manual inflation by the Black Clip-on deflator & inflator

To increase the purity of the nitrogen in the tire the air must be removed.

4.1.1 Air extraction

1. Connect 0.7m hose (J) to the tire.
2. Turn the Inflation/Deflation control valve (N) handle to “Air extraction” position.
3. Turn on the Deflation ball valve (K).

4.1.2 Nitrogen inflation

1. Turn the Inflation/Deflation control valve (N) handle to “N2 Inflation” position.
2. Turn on the Inflation ball valve (L).
3. Tire pressure gauge will indicate the tire pressure when the Nitrogen inlet & Inflation ball valve (L) turn off.

CAUTION
If the tyre is still in position on the vehicle, it is paramount that all weight be taken off the tyre by means of jacking the car up before deflating the tyre. The tyre must remain without load until re inflation is complete.

4.2 Automatic Inflation

4.2.1 Topping Up of Nitrogen

1. A choice between bar, PSI, Kgf/cm2 and Mpa on the keypad is available by pressing the white ‘C arrow key’ before preferred choice.
2. Press the tyre pressure keys ‘∇’ or ‘∆’ to set the final inflation pressure required.
3. Connect the hose to Tire, ensure the hose is connected securely. Nitrogen leaks will cause an error message to be displayed.
4. If the pressure in the tire is higher than 15 psi, 100 kPa or 1.0 bar, the process will commence.
5. When the top up cycle is completed, the unit beeps and the target pressure flashes in the display.
4.2.2 Nitrogen Filling of the New Tire

1. A choice between bar, PSI, Kgf/cm² and Mpa on the keypad is available by pressing the white ‘C arrow key’ before preferred choice.
2. Press the time setting key ‘∇’ or ‘∆’ for purge/vacuum cycle. The default value of the machine is 20 seconds and the user can increase or decrease this setting according to the tyre size.
3. Press the tyre pressure keys ‘∇’ or ‘∆’ to set the final inflation pressure required.
4. Connect the hose to Tire, ensure the hose is connected securely. Nitrogen leaks will cause an error message to be displayed.
5. Press the key ‘START’ for automatic purging cycle and nitrogen inflation to commence.
6. When the top up cycle is completed, the unit beeps and the target pressure flashes in the display.

4.2.3 To Convert Existing Mounted Air-Filled Tire to Nitrogen.

1. If the tyre is still in position on the vehicle, it is paramount that all weight be taken off the tyre by means of jacking the car up before deflating the tyre. The tyre must remain without load until re-inflation is complete.
2. Deflate the tyre by removing the valve stem and once deflated, re-insert.
3. A choice between bar, PSI, Kgf/cm² and Mpa on the keypad is available by pressing the white ‘C arrow key’ before preferred choice.
4. Press the time setting key ‘∇’ or ‘∆’ for purge/vacuum cycle. The default value of the machine is 20 seconds and the user can increase or decrease this setting according to the tyre size.
5. Press the tyre pressure keys ‘∇’ or ‘∆’ to set the final inflation pressure required.
6. Connect the hose to Tire, ensure the hose is connected securely. Air leaks will cause an error message to be displayed.
7. Press the key ‘START’ for automatic purging cycle and nitrogen inflation to commence.
8. When the top up cycle is completed, the unit beeps and the target pressure flashes in the display.

CAUTION
Should the inflation line detach from the valve during inflation the machine will display the code ‘Err’.
Pressing the key ‘pause’ at any time will stop the operation and repressing ‘pause’ will start the operation.
5.0 The Pressure Calibration Procedures

To the automatic tyre nitrogen inflators, when the users found the inflator accuracy is higher than 1.5PSI / 0.1bar / 0.01Mpa / 0.1Kgf/cm², they can calibrate the unit by the following methods.

1. Open the tyre nitrogen inflator, the below part is seeing on the top of the machine.

2. Turn off the power, take off the accessory (C) from the kick 4 and kick 5 of the accessory (B), then insert it to the kick 1 and kick 2 of accessory (A). Turn on the power.

3. Find a 14 inch tyre with the pressure inflated to 2.5bar/36PSI exactly, connect the tyre to the Automatic nitrogen inflation outlet (refer to Section 2.0 Control Layout) located in the nitrogen inflator by the Hose with single clip-on open type chuck included (the customer also should use this hose to inflate tyres, or else will cause measuring difference.)

4. Currently, the tyre nitrogen inflator LED (PRESSURE SETTING) will display the pressure reading value, maybe 2.3 bar, 2.4 bar, 2.5 bar, 2.6 bar or other values. Rotate the knob on the accessory (D) with screwdriver, the reading on the LED will changing, and adjust the LED display pressure into 2.4 bar/35PSI.

5. Deflate the tyre totally, and the tyre pressure should be 0 bar at this moment, then connect the tyre to the the Automatic nitrogen inflation outlet (refer to Section 2.0 Control Layout) located in the nitrogen tire inflator (or disconnect the tyre from the nitrogen tire inflator, and let the Automatic nitrogen inflation outlet located in the nitrogen tire inflator linked to the atmosphere.)

6. Now the LED will display 0.01 bar, 0.02 bar, 0.03 bar or any other digitals, then rotate the knob on the accessory (E) with screwdriver. The reading on the LED will change too, and adjust the LED display pressure into 0.01 bar.
7. Repeat the steps 3,4,5,6 three times.

8. Turn off the power, take off the accessory (C) from the kick 1 and kick 2 of the accessory (A), then insert it to the kick 4 and kick 5 of accessory (B). Turn on the power again.

9. The calibration is over.