EVERET

ALL FOR AUTO

IETM NO:EE-NI170P

USER MANUAL

KEEP THE MANUAL NEAR THE MACHINE ALL TIME AND MAKE SURE ALL USERS HAVE READ THIS.

FOLLOW THE INSTRUCTIONS CAREFULLY TO GRANT THE MACHINE A CORRECT FUNCTION AND LONG SERVICE LIFE.

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6 Tyres simultaneous Inflation&N2P Feature Nitrogen Tyre Inflation System suit for Bus and Car

Main Features:

- **Nitrogen output make the unit a fit for almost any size automotive service facility**
- **Converts up to 6 tyres to Nitrogen simultaneously at the touch of a button**
- **Nitrogen Purge(N2P) feature, Replaces the Air in tyres with Nitrogen automatically, without lifting the vehicle or removing the tyres or valves**
- **Inflate up to 6 tyres simultaneous could save 70% time than single tyre inflation**
- **Fully Automated, fully programmable, micro-processor controlled conversion system**
- **Self-diagnostic features**
- **Over Pressure Setting (OPS)**
- **Suit for: Motorcycle, Car, Light Truck, Bus**

Multi-Tyres simultaneous Inflation&N2P Feature Nitrogen Tyre Inflation System Operation Steps:

1. Set final target pressure using the + and - buttons. The LCD screen will show the target pressure.
2. Connect air hose(s) to tire valve stem(s).
3.FOR TOP-OFF ONLY: Turn red valve handle to the “FILL” position and push the “FILL/PURGE” button once.
4. FOR NITROGEN CONVERSION: Turn red valve handle to the “FILL” position and push and hold the “FILL/PURGE” button for 2 seconds until the LCD screen shows “N2P”.
5. When unit “beeps” and the LCD screen flashes the target pressure, tire inflation is complete.
6. Allow 20 seconds for the pressure in all tires to equalize, then turn red valve handle to the “STOP” position.
7. Immediately remove hose(s).

1.0 Introduction

1.1 This Manual

Congratulations on selecting the nitrogen tire inflation equipment. Please read and familiarize yourself with this manual before attempting to use this unit. Although this unit is very simple to operate, the user will be working with high-pressure gas that must be handled with caution. Compressed gas, if handled improperly, can result in serious or fatal injury.

1.2 General Specifications *

Power Requirement	100/240Vac 50/60Hz
Operating Temperature	-20℃ to 70℃, -4°F to 158°F
Compressed Air Input Range	145-217psi/1000-1500kPa/10-15bar
Compressed Air Quality	0.01ppm
Recommended Inlet Supply Pressure	44 psi, 300kPa or 3 bar above the maximum set pressure of the unit.
Nitrogen Purity	95-99+%, Adjustable
Nitrogen Output	232L/min (8.2cfm) @ 116psi/800kPa/8bar Absorption pressure
Maximum Nitrogen Pressure in Tank	145-174psi/1000-1200kPa/10-12bar
Operating Range	5-162psi/35-1120kPa/0.3-11.2bar
Accuracy	+/-1 psi, 7 kPa, 0.07 bar
Display Increments	1 psi, 5 kPa, 0.1 bar
Units of Measurement	psi, kPa, bar

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

1.3 Safety

General

The unit has standard process plant components and electrical equipment, which can be hazardous to individuals unfamiliar with such equipment. It is the users' responsibility to permit only trained and qualified process plant operators familiar with the handling of compressed gases to operate this equipment.

Breathing

This unit is designed to produce high purity nitrogen from 95 – 99% purity. Nitrogen is a colorless, odorless gas that will not support life. If released in an unventilated area, it will displace the oxygen and can cause injury or death from asphyxiation.

<u>CAUTION:</u> Nitrogen gas represents an extreme asphyxiation hazard when not handled properly. Product gas should not be vented or otherwise discharged except through the normal piping system. Appropriate signs should be placed in the area of the nitrogen system warning of the hazards.

2.0 Assembly

1. Unpack the carton and identify the components.

Description	Quantity
Generator Unit	1
System Pressure Gauge	1
Hose with Couplers (1 meter/39 Inch)	1
Tire Fill Hoses with Chucks	4
Hose/Cord Storage Hooks	5
Storage Tank Base	1

2. Screw the System Pressure Gauge onto the Pre-Filter assembly.

3. Install the 5 provided Hose/Cord Storage Hooks onto the Unit with the screws provided.

4. If using an optional Storage Tank, install the Storage Tank Base to the main Base Frame with the provided hardware. Bolt the Storage Tank to the Storage Tank Base. Using the provided 1 meter/39 inch Hose with Couplers, connect the Storage Tank to the Outlet port located on the side of the Unit above the Pre-Filter assembly.

5. Connect a compressed air supply to the Air Inlet located on the Pre-Filter. This Inlet accommodates any ¼" nipple or airline fitting.

6. Connect the four Tire Fill Hoses to four of the outlet couplings located on the Unit.

7. Place the four Tire Fill Hoses on the Hose Storage Hooks.

Air Supply Caution

Compressed air should be supplied to the unit with the air dried to a dew point temperature lower than the expected minimum ambient temperature. Typical dew point from a properly sized refrigerated air dryer is sufficient (+40°F, 4°C). No water in liquid form should be present. Inlet air pressure must be less than 217 psi.

3.0 Preparation for Use

1. Plug unit power cord into the power source.

2. Connect a compressed air supply line to the inlet located on the Pre-Filter.

3. Turn the red handle of the Fill Control Valve (Fill/Stop Valve) to the “STOP” position.

4. Turn the unit on by depressing the Power Switch. The Unit will immediately begin to produce nitrogen. The nitrogen pressure gauge located on the Unit above the Pre-Filter assembly will indicate the nitrogen pressure in the system and/or the external storage tank.

5. The Unit is ready for use when the nitrogen pressure gauge indicates a pressure of 130psi (9.0bar,900kPa) or greater.

6. Press and hold the "ON" or (⏻) button on the inflator panel to power up the LCD screen. The equipment is now ready to use.

WARNING
To avoid the risk of personal injury, especially to the eyes, face and skin, **DO NOT** direct air or nitrogen stream at any person(s).

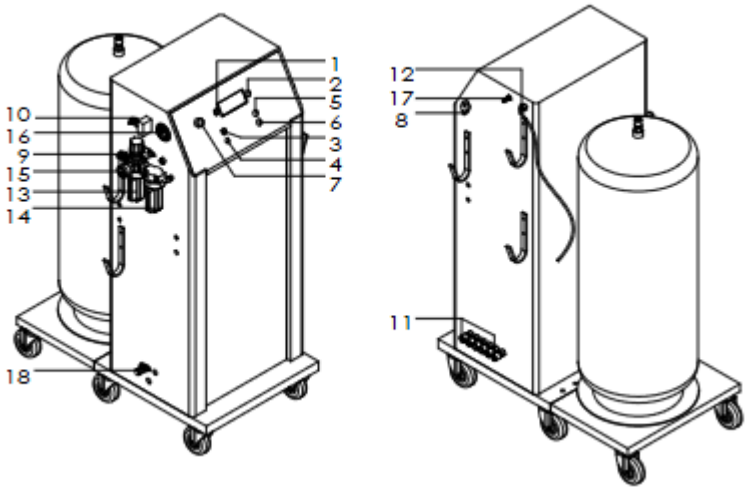
CAUTION
To avoid equipment damage, never exceed the maximum inlet pressure.

NOTE:
The filter bowls on the Pre-Filter assembly will accumulate water and oil when the generator is in operation.
The water will be drained when you pulled out the inlet air pipe or turned off the red air inlet valve when the machine is power on.

It is important that the filter elements are replaced on a regular basis (at least every 6 months) to prevent contaminates from entering the Unit.

4.0 Control Panel

4.1 Switch and Control Functions



1. **"-":** Reduce final target pressure
2. **"+":** Increase final target pressure
3. **"ON" or (⏻):** Power on LCD screen
4. **"STOP":** Stop inflation/deflation process
5. **"SET/MODE" or (i):**

Set Over Pressure (OPS), Purge cycle (N2P), DPS and other modes

6. **"FILL/PURGE" or (◈):**

Inflation/Deflation start (Save OPS, N2P and other settings, exit)

7. **Power Switch:** Turns unit on and off
8. **Fill Control Valve**
9. **Compressed Air Inlet**
10. **Nitrogen Outlet:** For external nitrogen storage tank
11. **Outlets:** For tire fill hoses
12. **Power Cord**
13. **Inlet Air Pre-Filters & Regulator**
14. **Inlet Air Pre-Filter**
15. **System Pressure Gauge:** Indicates inlet air pressure
16. **Nitrogen Pressure Gauge:** Indicates system nitrogen pressure
17. **Nitrogen Purity Test Port**
18. **Nitrogen Outlet:** For your tire inflation gun.

4.2 Auto-Off Power Save

The inflator and LCD screen are programmed to switch off when unit is unused for 10 minutes. To restart inflator, press the **"ON" or** (⏻) button.

5.0 Operation

Over Pressure Setting (OPS)

The OPS function momentarily "over-inflates" the serviced tires beyond the final target pressure, by the amount set, and then deflates the tires to the final target pressure. For example, with a final target pressure of 35 psi and an "OPS" setting of 10 psi, when the "FILL/PURGE" button is engaged to perform a "Top-Off," inflation will commence and the display will flash the total sum pressure of 45 (35 psi target pressure plus 10 psi OPS), then revert to displaying the actual tire pressure. The tire(s) will inflate to the sum pressure of 45, the unit will beep twice, and then deflate to the final target pressure of 35 psi.

To set the OPS value, press the "SET/MODE" button. The LCD display will flash “OPS” and the current set value alternately. To change the OPS setting, press the "+" or "-" buttons. Save your selection by pressing the "FILL/PURGE" button. The OPS setting can be changed again whenever required.

To inflate without OPS, set the OPS value to zero.

To prevent the accidental use of the OPS function, the OPS reverts back to its default setting of zero each time the inflator is powered down.

WARNING

When using the OPS function, the sum pressure must not exceed the tire manufacturer's maximum inflation pressure value for the serviced tire.

Nitrogen Purge Setting (N2P)

"N2P" represents the number of "purge" cycles, inflation and deflation of the tires, the inflator will perform. To set the number of purge cycles, or N2P, press the "SET/MODE" button. The display will flash “OPS” and the OPS set value alternately. Press the "SET/MODE" button again and the display will flash “N2P” and the N2P set value alternately. To change the N2P, press the "+" or "-" buttons. Save your selection by pressing the "FILL/PURGE" button. The N2P setting can be changed again when required. N2P is preset to '"2" and can be set per above from "0" to"9" purges.

Deflation Value Setting (DPS)

"DPS" represents the deflation pressure value, or the pressure value to which the tires will deflate during the initial and all subsequent deflation cycles when the unit is in the

"N2P" mode. DPS is preset, and defaults upon power up, to 4 psi but is adjustable from 4 psi to 87 psi.

To set DPS, press the "SET/MODE" button. The display will flash “OPS” and the OPS set value alternately. Press the "SET/MODE" button again and the display will flash “N2P” and the N2P set value alternately. Press the "SET/MODE" button a third time and the display will flash “DPS” and the DPS set value alternately. Press the "+" or "-" buttons to change the DPS setting. Save your selection by pressing the "FILL/PURGE" button. The DPS setting can be changed again when required.

Partial Re-Inflation Value Setting (PER)

“PER” represents the re-inflation pressure value, or the pressure value to which the tires will be re-inflated after the initial and all subsequent deflation cycles when the unit is in the "N2P" mode. PER is preset to 15P and ranges from 1P to 50P.

The PER pressure value is calculated as a factor of DPS as follows: DPS ÷ 0.PER = PER pressure value, in “psi.” To illustrate: assuming a final target tire pressure of 35 psi, the inflator’s normal default target pressure setting, if DPS is set to its normal default preset of “4” psi and PER is set to its normal default preset of “15P” and with the N2P set to its normal default preset of “2,” upon activation the tires will deflate to 4 psi, re-inflate to 26 psi (4 ÷ 0.15 = 26), deflate to 4 psi and finally, re-inflate to 35 psi. If the N2P setting is changed to “1,” but all other above settings remain at their normal default values, upon activation the tires would deflate to 4 psi and re-inflate to 35 psi.

To set PER, press the "SET/MODE" button. The display will flash “OPS” and the OPS set value alternately. Press the "SET/MODE” button again and the display will flash “N2P” and the N2P set value alternately. Press the "SET/MODE" button a third time and the display will flash “DPS” and the DPS set value alternately. Press the "SET/MODE" button a fourth time and the display will flash “PER” and the PER set value alternately. Press the "+" or "-" buttons to change the PER setting. Save your selection by pressing the "FILL/PURGE” button. The PER setting can be changed again when required.

Auto-Start

The Auto-Start feature allows the inflation/deflation of tires to a preset target pressure without having to press any buttons to start the process. When both "OPS" and "N2P" are set at "0," and the Fill Control Valve is in the "FILL" position, and the tire(s) being serviced contain more than 5 psi, the serviced tire(s) will immediately begin to inflate/deflate to the target pressure upon connecting the tire fill hose(s).

To permit the selective use of the **"FILL/PURGE" or** () button, the automatic start is disabled when the N2P or OPS settings are greater than zero.

5.1 Converting Tires to NITROGEN

1. Set the final target pressure, OPS, N2P, DPS and PER settings.

NOTE: For basic conversions OPS, N2P, DPS and PER should be set to their "default" values:

OPS: 0

N2P: 2

DPS: 4

PER: 15

2. Connect the tire fill hose(s) to the tire valve stem(s).

3. Turn the Fill Control Valve handle to “FILL” position.

4. Press and hold the **"FILL/PURGE" or** ( ) button for 2 seconds, Release the **"FILL/PURGE" or** ( ) button only when "N2P" appears on the LCD display screen.

5. When the cycle is completed, the unit will "beep" and the target pressure will flash on the LCD screen.

6. Wait! As the flow rate of individual tire valves can vary, allow 20 seconds for the pressure to equalize in the tires before turning the unit off or disconnecting the hoses. (When topping off a single tire there is no need to wait for pressure equalization).

7. Turn the Fill Control Valve handle to “STOP” position.

8. Immediately disconnect the tire fill hoses.

NOTE: Immediately disconnecting the tire fill hoses from the tire valve stems after turning the Fill Control Valve handle to "STOP" eliminates potential leakage from the tires due to a loose chuck, connection, etc.

5.2 Topping-Off Tires with NITROGEN

1. Set the final target pressure.

NOTE: When merely adjusting tire pressure (performing a "Top-Off), it is not necessary to adjust the N2P or DPS settings. The OPS setting, however, should be at "0."

2. Connect the tire fill hose(s) to the tire valve stem(s).

3. Turn the Fill Control Valve handle to the “FILL” position.

4. Press the **"FILL/PURGE" or** ( ) button momentarily (for less than 1 second).

The unit will inflate or deflate the tire(s) to the target pressure.
NOTE: If OPS and N2P are set to zero, and the pressure in the tire(s) is greater than 5 psi, it is not necessary to press the **"FILL/PURGE" or** () *button, as the "Auto Start" feature will automatically begin to inflate or deflate the tires to the target pressure.*

5. When the top-off cycle is completed, the unit will "beep" and the target pressure will flash on the LCD screen.

6. Wait! As the flow rate of individual tire valves can vary, allow 20 seconds for the pressure to equalize in the tires before turning the unit off or disconnecting the hoses. (When topping off a single tire there is no need to wait for pressure equalization).

7. Turn the Fill Control Valve handle to the “STOP” position.

8. Immediately disconnect the tire fill hoses.
NOTE: Immediately disconnecting the tire fill hoses from the tire valve stems after turning the Fill Control Valve handle to "STOP" eliminates potential leakage from the tires due to a loose chuck, connection, etc.

5.3 For use as a Standard Digital Tire Inflator (Single Tire Application)

The inflator can be used as an automatic inflator for rapid tire calibration. For such use, set OPS and N2P to zero, set target pressure and turn the Fill Control Valve to "FILL." For this operation, the Fill Control Valve must remain in the "FILL" position and an "Open" type chuck must be installed on the tire fill hose being used.

6.0 Troubleshooting

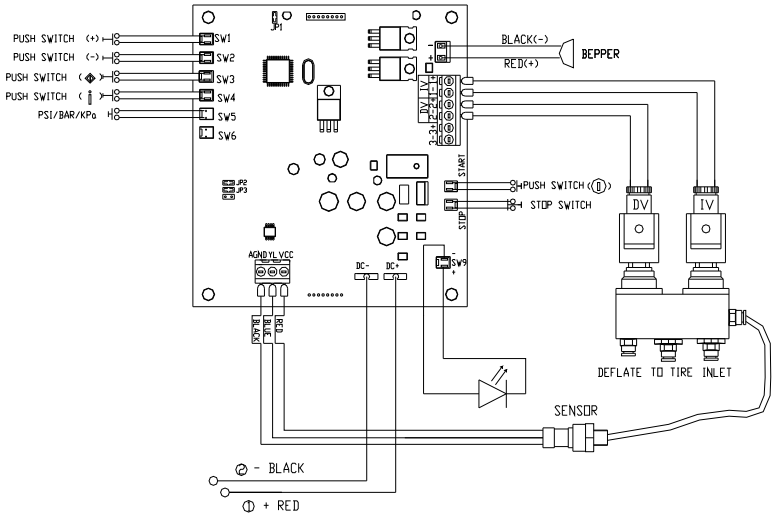
PROBLEM	POSSIBLE CAUSE	SOLUTION
No display	No power supply	Check power supply
The unit deflates very slowly	The deflate tubing is blocked	Remove and clean the plug
The unit inflates very slowly	Low or nil supply pressure	Check the supply pressure
The unit no longer beeps	The beeper is damaged	Replace the beeper

ERROR CODES

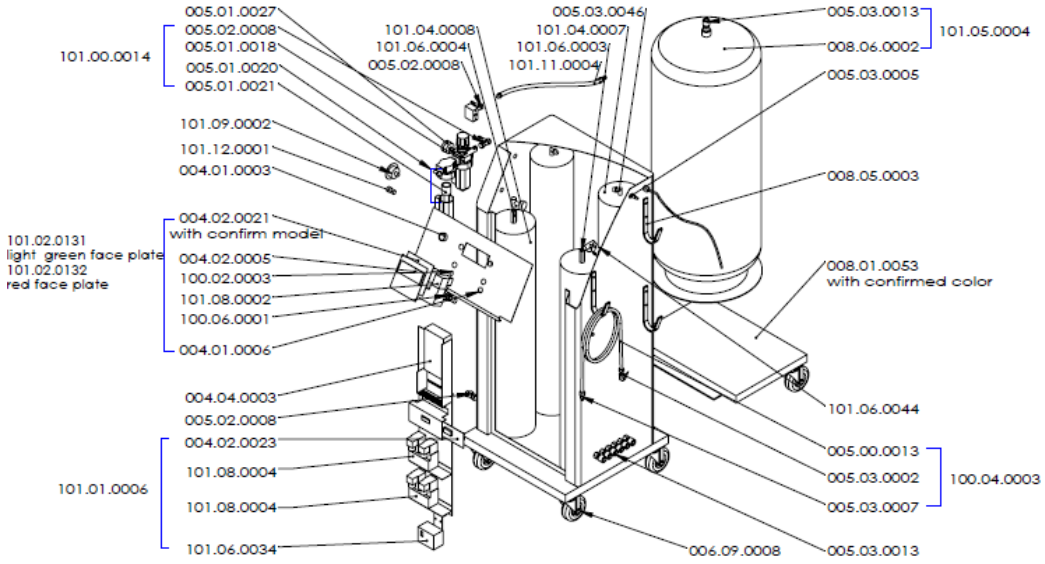
ER1	Faulty PCB	Replace PCB

ER2	Faulty hose connector	Replace the hose connector
ER3	Low or nil supply pressure	Check the supply pressure
ER4	Calibration Error	Disconnect hose from tire
ER5	Low battery or faulty adapter	Recharge battery or adapter
ER6	Faulty pressure sensor or PCB	Replace the sensor or PCB
ER7	Tire pressure is Error	Replace the valve or PCB
ER9	Calibration Error	Replace the pressure sensor

7.0 Wiring Diagram



7.1 Item Code and Description:



8.0 Maintenance

8.1 Routine Maintenance

Change Filter Elements (Minimally every 6 months)
Caution: Perform Element changes only when system is depressurized.

1. Unscrew/detach the filter housing from the filter head and drain off any oil in the housing into a suitable container.

2. Remove and discard the used element. Replace the element with a new one of the appropriate grade.

3. Screw/reattach the filter housing back onto the filter head. Do not overtighten. Housing is sealed with an o-ring, so gently hand-tighten.

4. Repeat this process for both filters.

8.2 Routine Maintenance Schedule

Daily
1. Check for air and nitrogen leaks. Tighten or re-tape fittings as necessary.
2. Check to ensure the inlet pressure is within recommended operating range.

Weekly
Clean unit as necessary.

Every Six Months
Replace filter elements.