



TABLE OF CONTENTS

SAFETY INSTRUCTIONS	1
DEFINITIONS	1
SPECIFICATIONS	2
INSTALLATION INSTRUCTIONS	3
OPERATING INSTRUCTIONS	3
MAINTENANCE	4
REPAIR PARTS	5,6

SAFETY INSTRUCTIONS

- NEVER allow unauthorized personnel to operate this product.
- NEVER use this product for anything other than its intended use.
- THOROUGHLY train new employees in the proper use and care of this product.
- PROHIBIT unauthorized personnel from being in shop area while this product is in use.

DEFINITIONS

- **CAUTION:** Indicates a potentially hazardous situation, which if not avoided, may result in damage to property or minor personal injury.
- **HAZARD:** A source of potential injury to a person.
- **MAINTENANCE:** Those actions that preserve the correct and proper conditions under which the machine shall be used. This may include adjustment, replacement of wear items, lubrication and cleaning, but not modifications or repair of damage.
- **MAY:** This word is understood to be permissive.
- **MUST:** This word is understood to be mandatory.
- **OPERATION:** The correct and proper use of the machine as described in this manual.
- **SAFETY ALERT SYMBOL:** A symbol that indicates a potential personal safety hazard. It is composed of an equilateral triangle surrounding an exclamation point.
- **SHALL:** This word is understood to be mandatory.
- **SHOULD:** This word is understood to be advisory.
- **WARNING:** Indicates a potentially hazardous situation, which if not avoided, may result in death or serious personal injury.

CAUTION

- ◆ Before using this product, read and fully understand the operating instructions and all decals on the product. This is necessary to prevent injury to the operator and damage to the product.
- ◆ Do not attempt to use this product for anything other than its intended purpose.
- ◆ Use of this product should be in a suitably ventilated shop.
- ◆ Operate valves slowly to prevent damage to coalescing filter.
- ◆ Use of this product is only permitted in places free from explosion or fire hazard.

SPECIFICATIONS

Max Compressed Air Supply	175 psi (10.3 to 12.0 bar)
Dimensional data	19 x 19 x 72.50 in (48 x 48 x 184 cm)
Weight	Model 500 185 lbs (84 kgs)
	Model 1000 210 lbs (95 kgs)
	Model 1500 235 lbs (107 kgs)

Specifications shown below are at an air temperature of 75° F (24° C) and a supply air pressure of 160psi (11.0 bar). These specifications are intended to be a baseline to result in the production of 95% pure Nitrogen. The output flow of Nitrogen has been pre-set to 7.1 scfm (11.4 Nm³/hr) per membrane. Changes to air temperature, supply air pressure or supply air flow will change the result of Nitrogen purity.

Model #	Supply Air Pressure		Supply Air Flow		Maximum Output N ₂ Flow		N ₂ Purity
	psi	bar	scfm	Nm ³ /hr	scfm	Nm ³ /hr	
500	160	11.0	13.8	22.2	7.1	11.4	95%*
1000	160	11.0	27.6	44.4	14.2	22.8	95%*
1500	160	11.0	41.4	66.6	21.3	34.2	95%*

* These are minimum settings. The purity can be increased by rotating the purity adjustment dial clockwise

Change	Note	Result
When supply air temperature increases	Supply air flow requirement will increase	Nitrogen Purity increases
When supply air pressure increases		
When supply air flow decreases	N ₂ output flow will decrease	
When supply air temperature decreases		Nitrogen Purity decreases
When supply air pressure decreases		
When supply air flow increases	N ₂ output flow will remain the same	Nitrogen Purity stays the same
Rotating purity adjustment dial clockwise	N ₂ output flow will decrease	Increase Purity
Rotating purity adjustment dial counter-clockwise	N ₂ output flow will increase	Decrease Purity

INTENDED USE

The Nitrogen Inflation System is a pneumatic device designed to generate deoxygenated air for the purpose of inflating vehicle tires.

INSTALLATION INSTRUCTIONS

1. Unpack and remove unit from shipping carton and pallet.
2. Inspect the unit for any visible damage.
3. Make sure the installation location is free from explosion or fire hazard and is a suitably ventilated; otherwise, ventilate the area periodically during use of the equipment.
4. Make sure the plumbing from the air compressor to the Nitrogen Generator is made of an appropriately rated copper, steel or aluminum and is at least 30 ft. in length.
5. Install on a solid level floor.
6. Anchoring the unit to the floor is not required but is recommended. Utilize the two holes in the base plate to anchor the unit.
7. Connect the **air** supply line to the inlet on the back of the unit.
8. Connect the **nitrogen** supply line to the deoxygenated air outlet on either side of the unit.
9. Slowly open ball valve at the inlet on the back of the unit.

NOTE:

The Nitrogen generator has a filter system that captures oil, water and other contaminants. However, if your air supply system generates an excessive amount of water, etc., it may be desirable to install an air dryer.

NOTICE:

The presence of any oil in the Nitrogen Membrane will void the manufacturer's warranty.

OPERATING INSTRUCTIONS

Turning the Nitrogen Generator ON

1. *Slowly* rotate ball valve at the back of the unit, from the closed position to the open position.
2. *Slowly* rotate valve lever on the front of the unit, from the "OFF" position to the "ON" position.
3. When the N₂ storage tank pressure reaches 160 psi, an automatic shut-off valve will stop the flow of air to the nitrogen generator. *This is done to prevent unnecessary use of the air compressor.*
4. When the N₂ storage tank pressure drops to 145 psi, the automatic shut-off valve will open back up and allow air flow thru the nitrogen generator.
5. To sample the nitrogen purity the nitrogen generator is producing, use the optional nitrogen analyzer and check it at the sampling port (front panel, left of ON/OFF valve) just as you would check a nitrogen filled tire.

NOTE: After the nitrogen line is pressurized or the N₂ storage tank is filled, vehicle tires can then be inflated.

Turning the Nitrogen Generator OFF

1. *Slowly* rotate ball valve at the back of the unit, from the open position to the closed position.
2. *Slowly* rotate valve lever on the front of the unit, from the "ON" position to the "OFF" position.

PURITY ADJUSTMENT INSTRUCTIONS

Your Nitrogen generator is equipped with a purity adjustment dial. Nitrogen purity is set to a minimum of 95%. To increase Nitrogen purity, rotate the purity adjustment dial clockwise. Maximum travel of the dial will be approximately 360°.

NOTE: Increasing Nitrogen purity will decrease your Nitrogen flow.

To decrease Nitrogen purity, rotate the purity adjustment dial counter-clockwise. The dot on the face of the dial is the position indicator.

MAINTENANCE

NOTE: To avoid personal injury or damage to the Nitrogen Inflation System, permit only qualified personnel to perform maintenance. **When cleaning or replacing filter elements and automatic float drains, shut off the supply air by closing the ball valve at the back of the unit. Press the pressure relief button on the front panel to exhaust all trapped air. You can now service the filters.**

See repair parts breakdown for replacement parts.

ALWAYS: Keep Nitrogen Inflation System clean.

DAILY: Check the automatic float drain on all filters for proper operation.

If the automatic float drain should become stuck open or inoperable, shut off the air supply (see NOTE above). Before servicing let the pressure bleed off from the filter. Remove the bottom cap from the bottom of the filter. The drain can be cleaned in hot soapy water. DO NOT attempt to disassemble the drain. If the drain is still inoperable after cleaning, it will have to be replaced. When installing a new drain, make sure the o-ring is installed on the bottom stem before screwing it into the bottom cap. Finger tighten only.

Check Filter Maintenance Indicator (front of unit). If indicator is:

Green – Filters are okay. No action is necessary.

Red – Clean particulate filter element (left filter). The particulate filter element is stainless steel and should never need replacing. The element can be removed and cleaned with soap & water and reinstalled.

Replace .01 micron coalescing filter element (right filter).

Order part number 05-0062 .01 Micron coalescing filter element (2-pack).

WEEKLY: Clean the automatic float drain on both filters.

See above.

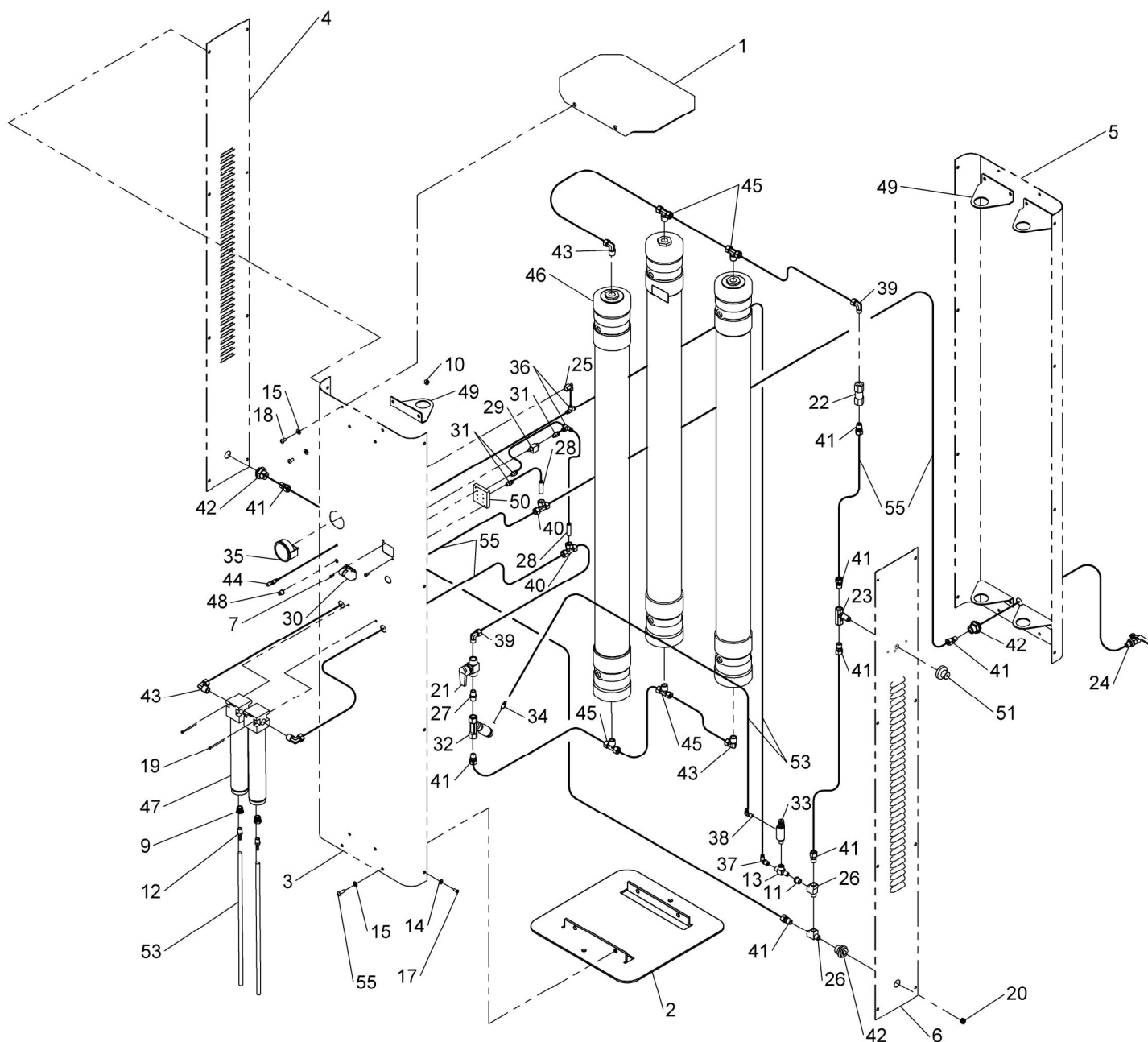
BI-YEARLY: Clean particulate filter element and replace coalescing element.

OWNER'S RECORDS

Date Installed: _____

Serial number _____ *Located on back panel*

REPAIR PARTS



ITEM	QTY	PART NO.	DESCRIPTION
1	1	06-0007	END PANEL
2	1	06-0019	BASE
3	1	06-0020	FRONT PANEL
4	1	06-0021	SIDE PANEL-L
5	1	06-0022	BACK PANEL
6	1	06-0059	SIDE PANEL - R
7	4	028-093	#6-32 X 1/2" PPHM SCREW
8	2	028-179	10-24 X 5/8 RD HD SCREW
9	2	039-008	1/2 TO 1/4 PIPE BUSHING

10	12	055-105	5/16-18 SF HEX LOCK NUT	
11	1	096-039	3/8-1/4 PIPE BUSHING FITTING	
12	2	096-192	1/4 MALE BARBED INSERT FITTING	
13	1	096-155	1/4 NPT TEE FITTING	
14	16	108-110	1/4 SAE FLAT WASHER	
15	20	108-123	5/16 SAE WASHER	
16	1	108-135	1" SAE WASHER	
17	16	50-0125	1/4-20 X 5/8 SOC BTN HC SCREW	
18	16	50-0126	5/16-18 X 5/8 SOC BTN HC SCREW	
19	2	50-0137	#8-32 X 2-1/2" PPHM SCREW	
20	1	60-0074	PLUG	
21	1	60-0113	BALL VALVE	
22	1	60-0114	CHECK VALVE	
23	1	60-0115	FLOW CONTROL VALVE	
24	1	60-0116	BALL VALVE	
25	1	60-0124	1/4NPT FEM X 1/4 TUBE EL	
26	2	60-0132	3/8 NPT STREET TEE	
27	1	60-0134	3/8 NPT HEX NIPPLE FITTING	
28	2	60-0139	REDUCER	
29	1	60-0140	2-WAY VALVE	
30	1	60-0143	DIFFERENTIAL INDICATION GAUGE	
31	3	60-0146	1/8" NPT MALE	
32	1	60-0253	PILOTED ANGLE-SEAT VALVE	
33	1	60-0163	UNLOADER PILOT VALVE	
34	1	60-0252	1/8 BSPP X 1/4 TUBE FITTING	
35	1	60-0167	300 PSI GAUGE	
36	2	60-0171	1/4 UNION TEE	
37	1	60-0172	1/4 X 1/4 NPT M SWVL ELB	
38	1	60-0173	1/4 X 1/8 NPT MALE SWIVEL ELBOW	
39	2	60-0175	1/2 TUBE TO 3/8 NPT M ELB	
40	2	60-0176	1/2 TUBE UNION TEE	
41	8	60-0177	1/2 TUBE X 3/8 NPT M CONN	
42	3	60-0178	3/8 NPT X 1-14 STR BHD CPLG	
43	4	60-0181	1/2 TUBE TO 1/2 NPT M ELB FITTING	
44	1	60-0196	1/4 BLKHD VALVE	
45	4	60-0202	1/2 NPT X 1/2" BR TEE	
46	3	64-0007	SEPARATOR	
47	1	64-0016	SEPERATOR/COALESCER FILTER	
48	1	69-0029	CAPTIVATED PUSH BUTTON	
49	6	72-0140	MEMBRANE BRACKET	
50	1	73-0982	DIFFERENTIAL GAUGE BLOCK	
51	1	73-1100	PURITY ADJUSTMENT DIAL	
52	1	D20-002	1/4 OD (GREEN) TUBE	
53	1	D20-011	1/4 ID X 1/8 WALL PVC TUBE	
54	1	D20-031	1/2 OD (BLACK) TUBE	
55	4	50-0154	5/16-18 X 1 SOC BTN HC SCREW	
56	1	05-0062	FILTER ELEMENT KIT	*
57	1	64-0021	MESH FILTER ELEMENT	*
58	1	69-0020	AUTO FLOAT DRAIN	*
Quantities shown are for the Model 1500 Nitrogen Tire Inflation System.				

* Items not shown

Branick Industries, Inc.

Nitrogen Products

COMMERCIAL WARRANTY

(Non-Transferrable)

This product is warranted by **BRANICK INDUSTRIES, INC.** to the original user-owner against defective materials or workmanship. During the warranty period, if Branick determines the product or components to be defective, it will be repaired or replaced (at Branick's option).

Warranty Period

Labor:	12 months from the date of delivery.
Parts:	12 months from the date of delivery.
Nitrogen Membranes:	60 months from the date of delivery. Proper pre-filter maintenance must be followed as stated in this manual. Contamination in the membranes such as oil, solvents, particles, etc. will void the warranty. In order for a membrane to be considered for warranty replacement, it must be returned for inspection.
Service or Repair:	Warranty service or repairs must be performed by a Branick designated service company. Membranes replaced under warranty will remain under warranty for the remaining portion of the original warranty period.

This warranty does not cover damage to the product caused by abuse, misuse, overloading, accident (including shipping damage), improper maintenance, alteration, or any other cause not the result of defective materials or workmanship.

REPLACEMENT IS THE EXCLUSIVE REMEDY FOR DEFECTIVE PRODUCT UNDER THIS WARRANTY. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OF THIS PRODUCT. BRANICK INDUSTRIES, INC. SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES.

BRANICK INDUSTRIES, INC. reserves the right to make changes in the design or construction of our products without obligation to incorporate such changes in products already sold and without notice.

Service parts, warranty, and regular repair service for **Nitrogen products** are available Monday through Friday, 7:30am to 4:30pm CST.

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