



**MODEL 350M  
NITROGEN INFLATION  
SYSTEM**

Installation, Operation  
& Repair Parts  
Information



Branick Industries, Inc. • 4245 Main Avenue • Fargo, North Dakota 58103

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## **SAFETY INSTRUCTIONS**

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- 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**

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- **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.
- ◆ Do not use this product if it is visibly worn, distorted or damaged.

### SPECIFICATIONS

Min/Max Compressed Air Supply	100 to 175 psi (6.9 to 12.0 bar)
Dimensional data	13.06 x 20.88 x 48.75 in (33.2 x 53 x 123.8 cm)
Weight	120 lbs (54.4 kgs)

Specifications shown below are at an air temperature of 75° F (24° C) and a supply air pressure of 125psi (8.6 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 3.2 scfm (5.1 Nm<sup>3</sup>/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 <sub>2</sub> Flow		N <sub>2</sub> Purity
	psi	bar	scfm	Nm <sup>3</sup> /hr	scfm	Nm <sup>3</sup> /hr	
350	125	8.6	6.3	10.1	3.2	5.1	95%*

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 <sub>2</sub> output flow will decrease	
When supply air temperature decreases		Nitrogen Purity decreases
When supply air pressure decreases		
When supply air flow increases	N <sub>2</sub> output flow will remain the same	Nitrogen Purity stays the same

### INTENDED USE

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

## **INSTALLATION INSTRUCTIONS**

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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 wall.
6. Anchor the unit to the wall with 3/8 anchor bolts (not supplied) utilizing the four mounting tab holes on the back of the unit.
7. Connect the **air** supply line to the inlet on the side of the unit.
8. Connect the **nitrogen** supply line to the deoxygenated air outlet on the side 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**

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1. *Slowly* rotate valve lever on the front of the unit, from the "OFF" position to the "ON" position.
2. Nitrogen is now being produced and vehicle tires can then be filled or a N<sub>2</sub> storage tank can be filled.
3. To sample the nitrogen purity the nitrogen generator is producing, use the optional nitrogen analyzer and check it at the sampling port (front panel, above the ON/OFF valve) just as you would check a nitrogen filled tire.
4. When not in use, *Slowly* rotate valve lever on the front of the unit, from the "ON" position to the "OFF" position.

## MAINTENANCE

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**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 turning the valve lever on the front of the unit to “OFF”. After the Inlet Pressure Gauge reads zero, you can 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.

**WEEKLY: Clean the automatic float drain on both filters.**

See above.

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

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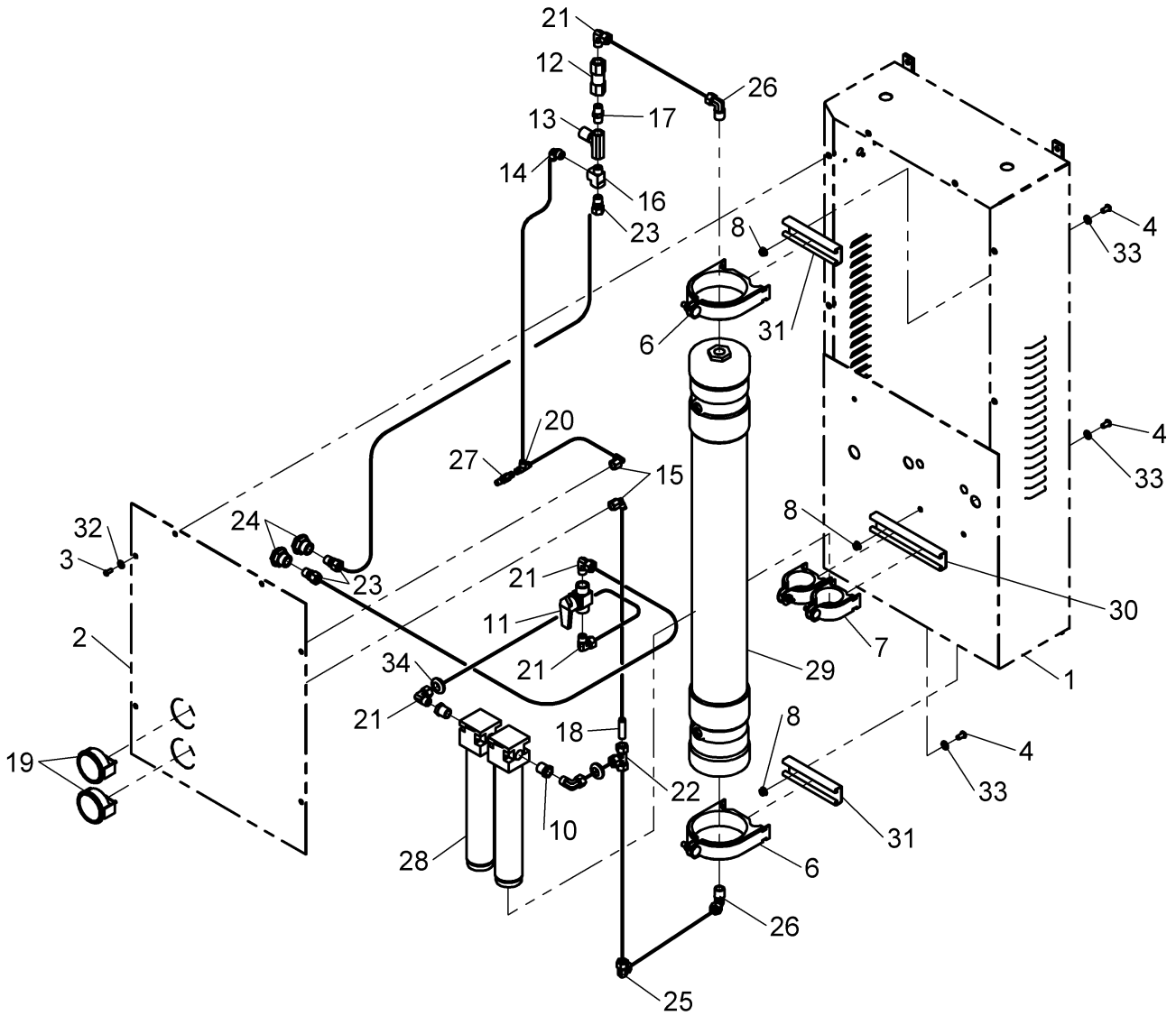
## OWNER'S RECORDS

Date Installed: \_\_\_\_\_

Serial number \_\_\_\_\_ *Located on back panel*

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# REPAIR PARTS



ITEM	QTY	PART NO.	DESCRIPTION
1	1	06-0034	MODEL 350 CABINET
2	1	06-0035	COVER PANEL
3	6	50-0125	1/4-20 X 5/8 BTN HC SCREW
4	6	50-0126	5/16-18 X 5/8 BTN HC SCREW
5	6	51-0039	RIVET 1/4-20 NUT
6	2	53-0030	4-1/2 O.D. CLAMP
7	2	53-0033	2-1/4 O.D. CLAMP
8	6	055-105	5/16-18 SF HEX LOCK NUT
9	2	59-0042	NYLON RATCHET PLUG
10	2	60-0107	REDUCER BUSHING
11	1	60-0113	BALL VALVE
12	1	60-0114	CHECK VALVE
13	1	60-0115	FLOW CONTROL VALVE
14	1	60-0120	1/4 TUBE TO 3/8 NPT M ELBOW
15	2	60-0124	1/4 TUBE TO 1/4 NPT FEM ELBOW
16	1	60-0132	3/8 NPT STREET TEE
17	1	60-0134	3/8 NPT HEX NIPPLE
18	1	60-0139	REDUCER
19	2	60-0167	2-1/2" 0-300 PSI GAUGE
20	1	60-0171	1/4 UNION TEE
21	5	60-0175	1/2 TUBE TO 3/8 NPT M ELBOW
22	1	60-0176	1/2 TUBE UNION TEE
23	3	60-0177	1/2 TUBE X 3/8 NPT M CONN
24	2	60-0178	3/8 NPT X 1-14 STR BHD CPLG
25	1	60-0180	1/2 TUBE UNION ELBOW
26	2	60-0181	1/2 TUBE TO 1/2 NPT M ELBOW
27	1	60-0196	1/4 SCHRADER BULKHEAD VALVE
28	1	64-0016	FILTER ASSEMBLY
29	1	64-0022	MEMBRANE SEPARATOR
30	1	70-0074	FILTER STRUT CHANNEL
31	2	70-0075	MEMBRANE STRUT CHANNEL
32	6	108-110	1/4 SAE FLAT WASHER
33	6	108-123	5/16 SAE FLAT WASHER
34	2	808-003	GROMMET
35		D20-002	1/4 OD (GREEN) TUBE
36		D20-031	1/2 OD (BLACK) TUBE
*	1	64-0017	FILTER ELEMENT
*	1	64-0021	MESH FILTER ELEMENT
*	1	69-0020	AUTOMATIC FLOAT DRAIN

\* Service Part Items

**Branick Industries, Inc.**  
**Nitrogen Products**  
**COMMERCIAL WARRANTY**  
**(Non-Transferrable)**

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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).

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**Warranty Period**

<b>Labor:</b>	12 months from the date of delivery.
<b>Parts:</b>	12 months from the date of delivery.
<b>Nitrogen Membranes:</b>	60 month warranty from the date of delivery. Proper pre-filter maintenance must be followed as stated in this manual including changing filters every six (6) months, and using ONLY filters purchased through Branick. Not doing so will void the five year warranty. Contamination in the membrane including water, oil, solvents, particles, and other contaminants will void the warranty. <b>Connecting to an airline with an oiler, or an unmaintained compressor will void the five year warranty.</b> In order for a membrane to be considered for warranty replacement, it must be returned for inspection.
<b>Service or Repair:</b>	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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