

Nordyne 904978

Nordyne 904978 Inducer Motor User Manual

Model: 904978 | Brand: Nordyne

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Nordyne 904978 Inducer Motor. Please read these instructions thoroughly before attempting any installation or service to ensure proper function and to prevent potential hazards. Keep this manual for future reference.

2. SAFETY INFORMATION

WARNING: Improper installation, adjustment, alteration, service, or maintenance can cause property damage, personal injury, or loss of life. Consult a qualified installer, service agency, or the gas supplier before installing or servicing this product.

- Always disconnect power to the appliance before performing any service or maintenance.
- Wear appropriate personal protective equipment (PPE) such as gloves and eye protection.
- Ensure all electrical connections are made according to local and national electrical codes.
- Verify that the replacement motor matches the specifications of the original part.
- Do not operate the motor if any parts are damaged or missing.

3. PRODUCT OVERVIEW

The Nordyne 904978 Inducer Motor is a critical component in HVAC systems, responsible for drawing combustion air into the furnace and expelling exhaust gases. This assembly includes the motor and the housing with an exhaust port.



Figure 1: Front-side view of the Nordyne 904978 Inducer Motor assembly, showing the motor housing and the exhaust port.



Figure 2: Side view of the inducer motor, highlighting the electrical wiring connections.

4. SETUP AND INSTALLATION

Installation of the Nordyne 904978 Inducer Motor should only be performed by a qualified HVAC technician. Incorrect installation can lead to system malfunction, safety hazards, or damage to the unit.

4.1 Pre-Installation Checks

- Verify that the new inducer motor (Model 904978) is the correct replacement part for your specific furnace model.
- Inspect the motor for any shipping damage. Do not install if damaged.
- Ensure the power supply to the furnace is completely disconnected at the circuit breaker.

4.2 Installation Steps (General)

1. Disconnect all electrical wiring from the old inducer motor, noting their positions for correct re-connection.
2. Remove the mounting screws or bolts securing the old inducer motor assembly to the furnace.

3. Carefully remove the old motor.
4. Position the new Nordyne 904978 Inducer Motor assembly, ensuring proper alignment with the furnace's exhaust and intake ports.
5. Secure the new motor with the appropriate mounting hardware.
6. Reconnect all electrical wiring, ensuring secure and correct connections. Refer to the furnace's wiring diagram if necessary.
7. Verify that the exhaust vent pipe is properly reconnected and sealed.



Figure 3: Side view of the inducer motor, showing the exhaust port where combustion gases are expelled.

5. OPERATING INSTRUCTIONS

Once installed, the Nordyne 904978 Inducer Motor operates automatically as part of the furnace's combustion cycle. It is controlled by the furnace's control board.

1. After installation, restore power to the furnace at the circuit breaker.

2. Initiate a call for heat from the thermostat.
3. The inducer motor should start, creating a draft to pull combustion air into the burner and prepare for ignition.
4. Listen for smooth operation. Any unusual noises should be investigated immediately.
5. Observe the furnace's ignition sequence to ensure proper functioning of the inducer motor and other components.

6. MAINTENANCE

Regular maintenance helps ensure the longevity and efficient operation of your inducer motor. Always disconnect power before performing any maintenance.

- **Annual Inspection:** Have a qualified technician inspect the inducer motor annually for signs of wear, corrosion, or damage.
- **Cleaning:** Periodically check the exhaust port and impeller for debris accumulation. Clean gently with a soft brush or vacuum if necessary. Ensure no foreign objects obstruct the airflow.
- **Lubrication:** Most modern inducer motors are sealed and do not require lubrication. Refer to the motor's label (Figure 4) for specific lubrication requirements. Do not lubricate if not specified.
- **Vibration Check:** During operation, listen for excessive vibration or unusual noises, which may indicate a failing bearing or impeller imbalance.



Figure 4: Rear view of the inducer motor, showing the manufacturer's label with specifications and potential lubrication instructions.

7. TROUBLESHOOTING

Before attempting any troubleshooting, ensure power to the furnace is disconnected. If you are unsure about any step, contact a qualified technician.

Problem	Possible Cause	Solution
Motor does not start	No power; faulty wiring; seized motor; faulty control board.	Check circuit breaker; verify wiring connections; inspect motor for obstructions; consult technician for control board diagnosis.
Motor runs but furnace does not ignite	Pressure switch issue; blocked exhaust/intake; faulty igniter.	Check pressure switch hose; clear obstructions from vents; inspect igniter.
Loud or unusual noises from motor	Worn bearings; debris in impeller; unbalanced impeller.	Inspect for debris; if bearings are worn, motor replacement may be necessary.

Problem	Possible Cause	Solution
Motor cycles on and off rapidly	Blocked exhaust/intake; faulty pressure switch; overheating.	Clear obstructions; check pressure switch; ensure proper ventilation.

8. SPECIFICATIONS

Feature	Detail
Model Number	904978
Brand	Nordyne
Type	Inducer Motor Assembly
Voltage	230V (Verify actual voltage on product label before installation, as specifications may vary.)
Horsepower (HP)	3/4 HP (Counter-Clockwise Rotation)
Product Dimensions	Approximately 10"W x 11"H x 10"D
Item Weight	7 Pounds
Speed Rating	100 (Refer to specific furnace requirements for RPM)
Manufacturer Part Number	G7TA/K-1 (Assembly designation)

9. WARRANTY AND SUPPORT

For warranty information and technical support, please contact Nordyne directly or refer to the documentation provided with your furnace. Keep your purchase receipt as proof of purchase for any warranty claims.

Nordyne Contact Information: Please visit the official Nordyne website or consult your local authorized dealer for current contact details and support resources.

Related Documents - 904978

	<p>NORDYNE K & F Series Gas Furnaces: Replacement Parts List</p> <p>This document provides a detailed replacement parts list for NORDYNE K & F Series two-stage condensing and non-condensing gas furnaces, covering models with fixed and variable speed blowers.</p>
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