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Broan-NuTone 9427P

Broan-Nutone 9427P 2-Bulb Infrared Ceiling Heater and Ventilation Fan Instruction Manual

Model: **9427P** | Brand: **Broan-NuTone**

1. PRODUCT OVERVIEW

The Broan-Nutone 9427P is a combined ceiling-mounted infrared bulb heater and ventilation fan designed to provide comfort and air circulation in bathrooms and similar spaces. This unit features two infrared bulb sockets for heating and an integrated fan for ventilation, operating at 70 CFM (Cubic Feet per Minute) with a sound level of 4.0 Sones. Its design allows for flexible wiring to control heating and ventilation functions independently or simultaneously.



Figure 1: The Broan-Nutone 9427P unit, showing the white grille with two bulb openings and the integrated fan housing.

Key Features:

- **Dual Functionality:** Combines a heater and ventilation fan in one unit.
- **Infrared Heating:** Utilizes two 250-Watt BR40-size infrared bulbs (not included) for targeted warmth.
- **Efficient Ventilation:** Provides 70 CFM airflow at 4.0 Sones for effective moisture and odor removal.
- **Flexible Control:** Designed for independent or simultaneous operation of heating and fan functions.
- **Durable Construction:** Features a sturdy steel housing and a white polymeric grille.
- **Adjustable Mounting:** Includes mounting brackets with keyhole slots that extend up to 24 inches for easy installation between joists.

2. SAFETY INFORMATION

Read and understand all instructions before installation and operation. Failure to follow these instructions may result in electric shock, fire, property damage, or personal injury. This unit must be installed by a qualified electrician in accordance with all local and national electrical codes.

General Safety Precautions:

- Always disconnect power at the service panel before working on the unit.
- Ensure proper grounding to prevent electrical shock.
- Do not install this unit in a shower or tub enclosure unless specifically rated for such use.
- Use only 250-Watt BR40-size infrared heat lamps. Do not exceed the maximum wattage.
- Maintain proper clearance from combustible materials as specified in the installation guide.
- Never block the air intake or exhaust vents.

3. INSTALLATION AND SETUP

Proper installation is crucial for the safe and efficient operation of your Broan-Nutone 9427P unit. It is recommended that installation be performed by a licensed electrician or qualified professional.

3.1 Package Contents

Verify that all components are present before beginning installation:

- Heater and Fan Housing Assembly
- White Polymeric Grille
- Adjustable Mounting Brackets
- Duct Connector
- Installation Hardware (screws, wire nuts, etc.)
- Instruction Manual (this document)

Note: Two 250-Watt BR40-size infrared bulbs are **not included** and must be purchased separately.

3.2 Mounting the Housing

1. **Prepare the Opening:** Cut a rectangular opening in the ceiling according to the dimensions provided in the detailed installation guide (refer to the template if included). Ensure there is sufficient space above the ceiling for the unit (Product Dimensions: 8.38 x 6.38 x 14.25 inches).
2. **Position Mounting Brackets:** The adjustable mounting brackets feature keyhole slots and can span up to 24 inches to fit between standard joists. Secure the brackets to the joists.
3. **Install Housing:** Insert the steel housing into the ceiling opening and secure it to the mounting brackets.

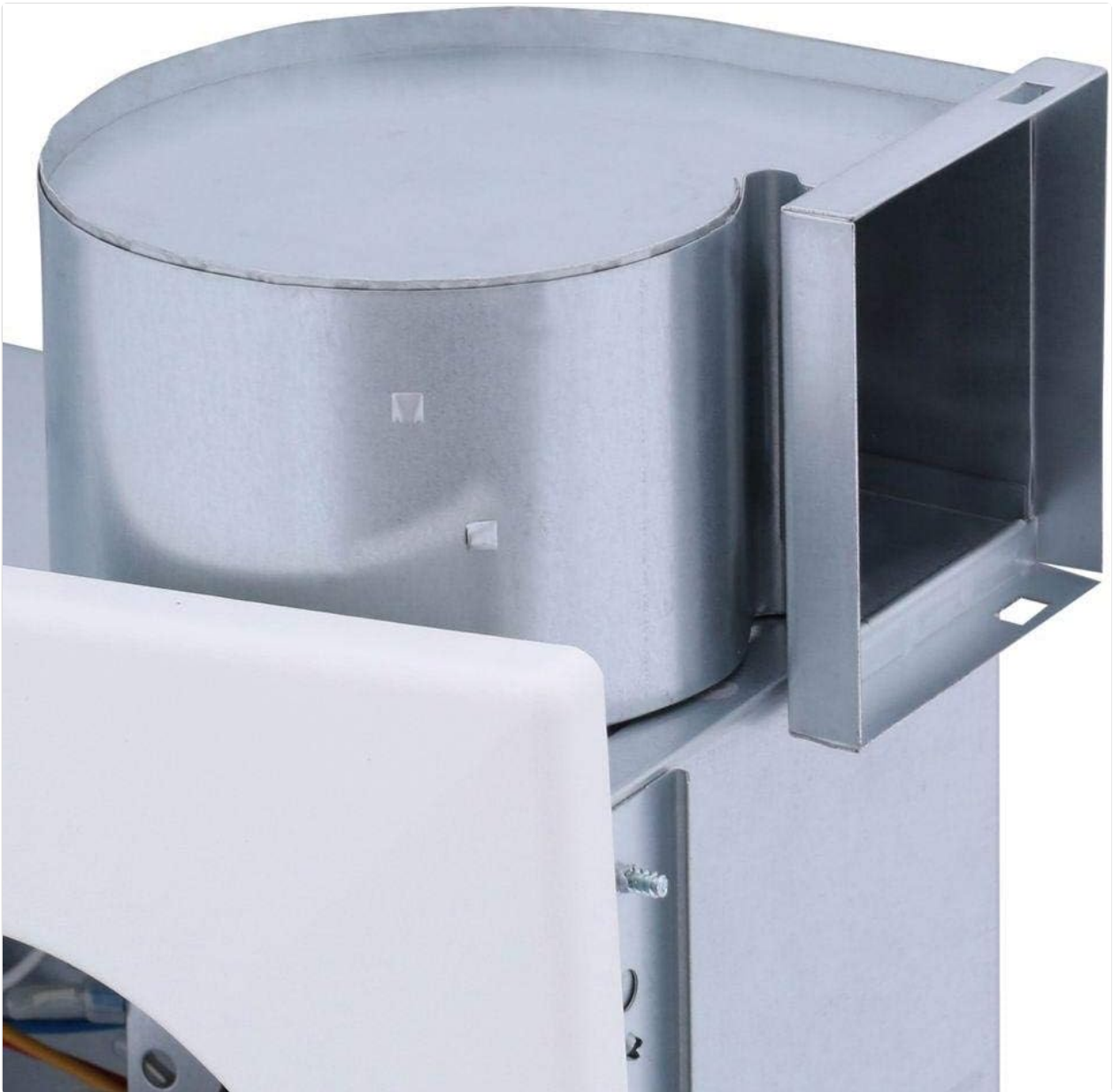


Figure 2: View of the fan housing and duct connector, illustrating the robust construction for secure installation.

3.3 Electrical Wiring

The 9427P unit requires a 120V AC power source and has a wattage of 500W (with bulbs) and an amperage capacity of 4 Amps. Multiple wiring diagrams are provided in the full installation manual to allow for various control options:

- Single switch for both heater and fan.
- Separate switches for heater and fan.
- Separate switches for each heat lamp and the fan.

Connect the electrical wiring to the junction box on the unit, ensuring all connections are secure and comply with local electrical codes. If you are unsure about electrical wiring, consult a qualified electrician.

3.4 Ducting and Grille Installation

1. **Connect Ductwork:** Attach appropriate ductwork (not included) to the unit's duct connector. Ensure a tight seal to prevent air leakage.
2. **Install Bulbs:** Screw two 250-Watt BR40-size infrared bulbs into the sockets.



Figure 3: Close-up of a bulb socket within the unit, ready for a BR40 infrared bulb.

- 3. Attach Grille:** Secure the white polymeric grille to the housing. The grille is designed to fit neatly into the ceiling, complementing various decors.

4. OPERATION

Once installed and wired, the Broan-Nutone 9427P is ready for operation. The functionality will depend on how the unit was wired during installation (e.g., single switch, separate switches).

4.1 Heater Function

Activate the heater using the designated wall switch. The two infrared bulbs will provide instant, radiant heat. Note that infrared heaters warm objects directly rather than heating the air, offering immediate comfort.

4.2 Ventilation Fan Function

Activate the ventilation fan using its designated wall switch. The fan will draw air from the room, exhausting

moisture, odors, and airborne particulates through the ductwork. This helps maintain indoor air quality and prevent humidity-related issues.

4.3 Thermal Protection

The unit is equipped with thermal switches for safety. If the temperature inside the housing becomes too high due to prolonged heater use, a thermal switch may activate the fan to dissipate heat. If temperatures continue to rise, a second thermal switch will turn off the heat lamps to prevent overheating.

5. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your Broan-Nutone 9427P unit. Always disconnect power at the service panel before performing any maintenance.

5.1 Grille Cleaning

Periodically remove the grille and wash it with mild soap and water. Rinse thoroughly and dry completely before reattaching. This prevents dust buildup and maintains airflow.

5.2 Fan Blade and Housing Cleaning

With the grille removed, carefully wipe down the fan blades and the interior of the housing with a damp cloth. Avoid getting water into electrical components. Dust and debris can accumulate on fan blades, reducing efficiency and increasing noise.

5.3 Bulb Replacement

When a heat lamp burns out, replace it with a new 250-Watt BR40-size infrared bulb. Ensure the power is off before replacing bulbs. Allow bulbs to cool completely before handling.

6. TROUBLESHOOTING

If your Broan-Nutone 9427P unit is not functioning as expected, refer to the following common issues and solutions:

- **Unit does not operate (no fan, no heat):**
 - Check if the circuit breaker is tripped or if the fuse is blown.
 - Ensure all wall switches are in the 'ON' position.
 - Verify electrical connections are secure (consult a professional if unsure).
- **Heater not providing warmth:**
 - Check if the infrared bulbs are burned out and replace if necessary.
 - Confirm that the heater switch is 'ON'.
 - The thermal switch may have activated the fan or turned off the lamps due to high internal temperature. Allow the unit to cool.
- **Fan is noisy or not moving air efficiently:**
 - Clean the grille and fan blades to remove dust and debris.
 - Check for obstructions in the ductwork.
 - Ensure the unit is securely mounted and not vibrating against joists or ceiling material.

- **Unit turns off unexpectedly:**

- This may be due to the thermal overload protection. Check for blocked airflow or excessive heat buildup.

If troubleshooting steps do not resolve the issue, contact Broan-NuTone customer support or a qualified service technician.

7. SPECIFICATIONS

Specification	Value
Model Number	9427P
Manufacturer	NuTone
Item Weight	8.3 pounds
Product Dimensions	8.38 x 6.38 x 14.25 inches
Color	White
Material	Steel
Power Source	AC
Voltage	120 Volts
Wattage	500 Watts (with bulbs)
Amperage Capacity	4 Amps
Air Flow Capacity	70 Cubic Feet Per Minute (CFM)
Sound Level	4.0 Sones
Type of Bulb (not included)	250-Watt BR40 Infrared
Mounting Type	Ceiling
Certification	Energy Star (for fan component)

8. WARRANTY AND SUPPORT

8.1 Warranty Information

The Broan-Nutone 9427P is covered by a **1-year manufacturer's warranty**. This warranty typically covers defects in materials and workmanship under normal use. For specific details regarding coverage, limitations, and how to make a claim, please refer to the warranty documentation included with your purchase or visit the official Broan-NuTone website.

8.2 Customer Support

For technical assistance, replacement parts, or further inquiries, please contact Broan-NuTone customer support. Contact information can typically be found on the manufacturer's website or on the product packaging.

9. RELATED PRODUCT INFORMATION

This section provides a general overview video of Broan-NuTone's ventilation fan product line. While not specific to the 9427P model's installation, it offers insights into the brand's commitment to indoor air quality and innovative ventilation solutions.

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Video 1: An overview of Broan-NuTone's ventilation fan product line, highlighting features and benefits across their range.