

## Broan-NuTone AE50

# Broan-NuTone AE50 Ventilation Fan Instruction Manual

Model: AE50

## INTRODUCTION

The Broan-NuTone AE50 Ventilation Fan is an ENERGY STAR certified exhaust fan designed to improve air quality in rooms up to 45 sq. ft. It operates quietly at 0.5 Sones and provides 50 CFM of airflow. This fan features TrueSeal Damper Technology to reduce air leakage and is engineered for easy room-side installation, making it suitable for both new construction and retrofit applications without requiring attic access. It is UL Listed for use over tubs and showers when connected to a GFCI circuit.

## SAFETY INFORMATION

### **WARNING: TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:**

- Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
- Before servicing or cleaning the unit, switch power off at the service panel and lock the service disconnecting means to prevent power from being switched on accidentally.
- Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction codes and standards.
- Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back-drafting. Follow the heating equipment manufacturer's guideline and safety standards.
- When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
- Ducted fans must always be vented to the outdoors.
- This unit must be grounded.
- Do not use this fan with any solid-state speed control device.
- This fan is UL Listed for use over a bathtub or shower when connected to a GFCI (Ground Fault Circuit Interrupter) protected branch circuit.

## PACKAGE CONTENTS

The Broan-NuTone AE50 Ventilation Fan package includes:

- Broan-NuTone AE50 Ventilation Fan Unit
- Non-Metallic Damper/Duct Connector
- Installation Instructions

## SETUP AND INSTALLATION

---

The Broan-NuTone AE50 is designed for easy room-side installation, eliminating the need for attic access in most retrofit situations. The EzDuct Connector simplifies duct attachment.

### Installation Steps:

1. **Prepare the Opening:** Ensure the ceiling opening is correctly sized for the fan housing.
2. **Mounting:** For new construction, use the foldable mounting ears to attach the housing directly to the ceiling structure. For retrofit installations, fold the mounting ears back to slide the housing into the ceiling hole, then attach it to the structure through the housing wall.
3. **Duct Connection:** Attach the non-metallic damper/duct connector to the fan housing. Connect the appropriate ductwork (typically 4-inch round) to the connector. Secure with tape or clamps as required by local codes.
4. **Wiring:** Connect the electrical wiring according to the provided wiring diagram and local electrical codes. Ensure the power is off at the service panel before beginning any wiring. For use over tubs or showers, connect to a GFCI protected circuit.
5. **Install Fan Assembly:** Insert the fan motor and blower assembly into the housing. Secure it with the provided fasteners.
6. **Attach Grille:** Secure the grille to the fan housing. The grille is designed for easy attachment and removal for maintenance.

# EASY INSTALLATION

Install New or Replacement Fans with Retrofit Installations that Can be Done Entirely from the Room-Side via EzDuct™ Connector



NO ATTIC  
ACCESS  
REQUIRED

Image: The Broan-NuTone AE50 fan grille, highlighting its easy room-side installation feature.

Your browser does not support the video tag.

Video: Official Broan-NuTone guide demonstrating the installation process for the Flex Ventilation Fan series, including room-side installation steps.

## OPERATING INSTRUCTIONS

The Broan-NuTone AE50 Ventilation Fan is designed for continuous operation to maintain optimal air quality. It is typically controlled by a wall switch.

- **Turning On/Off:** Operate the fan using the designated wall switch.
- **Recommended Use:** For best results in controlling humidity and odors, operate the fan during and after showering or bathing for at least 15-20 minutes.
- **Quiet Operation:** The fan operates at an ultra-quiet 0.5 Sones, ensuring minimal noise disruption.



Image: The Broan-NuTone AE50 Exhaust Fan, highlighting its effective and energy-efficient operation.

## MAINTENANCE

Regular cleaning of your ventilation fan will ensure optimal performance and longevity.

### Cleaning the Grille:

1. **Disconnect Power:** Always turn off the power to the fan at the service panel before cleaning.
2. **Remove Grille:** Gently pull down the grille to detach it from the housing. It typically uses spring clips for easy removal.
3. **Clean Grille:** Wash the grille in warm, soapy water. Rinse thoroughly and dry completely before reattaching.
4. **Clean Fan Interior:** Use a vacuum cleaner with a brush attachment to remove dust and debris from the fan motor and blower wheel. Do not immerse electrical parts in water.
5. **Reattach Grille:** Once clean and dry, push the grille back into place until the spring clips secure it.
6. **Restore Power:** Turn the power back on at the service panel.

Your browser does not support the video tag.

Video: A user review demonstrating the quiet operation of the Broan-NuTone fan and showing the ease of removing the grille for cleaning.

## TROUBLESHOOTING

Problem	Possible Cause	Solution
Fan does not operate	No power to the fan; Loose wiring; Faulty switch or motor	Check circuit breaker/fuse; Verify wiring connections; Test/replace switch or motor.
Excessive noise	Loose mounting screws; Debris in blower wheel; Damaged motor or blower wheel	Tighten mounting screws; Clean blower wheel; Replace motor or blower wheel if damaged.
Poor ventilation performance	Blocked ductwork; Dirty grille or blower wheel; Undersized fan for room area	Check and clear ductwork obstructions; Clean grille and blower wheel; Ensure fan CFM matches room size.

## SPECIFICATIONS

- **Brand:** Broan-NuTone
- **Model Name:** AE50

- **Air Flow Capacity:** 50 Cubic Feet Per Minute (CFM)
- **Noise Level:** 0.5 Sones
- **Efficiency:** ENERGY STAR certified
- **Power Source:** AC
- **Voltage:** 120V
- **Wattage:** 20 watts
- **Product Dimensions:** 11.5"D x 12"W x 5.75"H
- **Room Type:** Bathroom
- **Mounting Type:** Ceiling or Wall Mount
- **Special Feature:** Roomside Installation
- **Material Type:** Metal, Plastic
- **Included Components:** Non-Metallic Damper/Duct Connector
- **Item Weight:** 8 Pounds

## WARRANTY AND SUPPORT

---

The Broan-NuTone AE50 Ventilation Fan comes with a **1-year limited warranty** from the manufacturer. For warranty claims, technical support, or further assistance, please refer to the contact information provided in your product packaging or visit the official Broan-NuTone website.

For more information and to explore other Broan-NuTone products, visit the [Broan-NuTone Store](#).