Broan-NuTone AE110L

Broan-NuTone AE110L Bathroom Exhaust Fan with LED Light User Manual

Model: AE110L

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1. Introduction

This manual provides instructions for the installation, operation, and maintenance of your Broan-NuTone AE110L Bathroom Exhaust Fan with LED Light. This ENERGY STAR Certified unit is designed to improve air quality and provide illumination in bathrooms up to 105 sq. ft. Please read all instructions carefully before proceeding with installation or use.



Figure 1: Broan-NuTone AE110L Exhaust Fan with LED Light

2. Safety Information

WARNING: To reduce the risk of fire, electric shock, or injury to persons, observe the following:

- Always disconnect power at the service panel before servicing or cleaning the unit.
- 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.
- Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
- 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 such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.
- When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
- Duct fans must always be vented to the outdoors.
- This unit is UL Listed for use over bathtubs and showers when connected to a GFCI (Ground Fault Circuit Interrupter) protected branch circuit.
- Proposition 65 Warning: This product can expose you to chemicals which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to

www.P65Warnings.ca.gov.

3. Product Features

The Broan-NuTone AE110L exhaust fan offers a combination of efficient ventilation and integrated lighting, designed for modern bathrooms.

- **High-Quality Fan Combo:** Provides quiet, energy-efficient exhaust with an integrated 11-Watt LED light.
- **Powerful Ventilation:** Operates at 110 CFM (Cubic Feet per Minute), suitable for rooms up to 105 sq. ft., effectively reducing humidity and fogged mirrors.
- **Quiet Operation:** Engineered for minimal noise, operating at 1.0 Sones.
- **Roomside Installation:** Designed for easy retrofit installations entirely from the room side, eliminating the need for attic access.
- **TrueSeal Damper Technology:** Reduces air leakage by up to 50% compared to competitive models, improving home performance and preventing backdrafts.
- **Durable Construction:** Features a 26-gauge galvanized steel housing and a 4-inch polymeric duct connector.
- **UL Listed:** Approved for use over tubs and showers when connected to a GFCI circuit.
- **ENERGY STAR Certified:** Ensures energy efficiency and cost savings.



Figure 2: Key features of the AE110L fan, including LED light, quiet operation, and easy installation.

4. Installation

The Broan-NuTone AE110L is designed for roomside installation, simplifying the process without requiring attic access.

4.1 Package Contents

- Exhaust Fan Housing
- Grille with Integrated LED Module
- Non-Metallic Damper/Duct Connector
- Installation Hardware

4.2 Tools Required (Not Included)

- Screwdriver (Phillips and Flathead)

- Drill
- Utility Knife or Drywall Saw
- Measuring Tape
- Wire Strippers
- Safety Glasses and Gloves

4.3 Installation Steps (Roomside)

1. **Prepare the Opening:** Carefully cut an opening in the ceiling according to the dimensions provided in the specifications (refer to Figure 4 for dimensions). Ensure no electrical wiring or other utilities are damaged.
2. **Mount the Housing:** From the room below, insert the fan housing into the ceiling opening. Secure the housing to the ceiling joists using the provided mounting hardware. The design allows for secure attachment without needing access from above.
3. **Connect Ductwork:** Attach the 4-inch ductwork to the polymeric duct connector on the fan housing. Ensure a tight seal to prevent air leakage.
4. **Electrical Wiring:** Connect the electrical wiring to the fan according to local electrical codes. Ensure power is OFF at the circuit breaker before making any connections. This unit requires a 120V AC power supply. If installing over a tub or shower, ensure the circuit is GFCI protected.
5. **Install Grille:** Once the housing is secured and wiring is complete, attach the grille with the integrated LED module. The grille typically snaps into place or is secured with small screws.



Figure 3: Illustrates the roomside installation process, showing a drill securing the fan housing.



Figure 4: Detailed dimensions of the fan housing and grille for accurate installation.

5. Operation

The Broan-NuTone AE110L fan and LED light are typically controlled by a standard wall switch. Depending on your wiring configuration, you may have separate switches for the fan and light, or a single switch controlling both.

- **Fan Operation:** Flip the designated wall switch to turn the exhaust fan ON. The fan will begin to extract moist air and odors from the bathroom.
- **Light Operation:** Flip the designated wall switch to turn the LED light ON. The integrated LED provides bright, energy-efficient illumination.
- **Optimal Use:** For best results in humidity control, operate the fan during and after showers or baths for at least 15-20 minutes to ensure all moisture is removed.



Figure 5: Visual representation of the fan effectively ventilating a bathroom, removing steam and odors.

6. Maintenance

Regular maintenance ensures optimal performance and longevity of your exhaust fan.

6.1 Cleaning the Grille

1. **Disconnect Power:** Always turn off power at the service panel before cleaning.
2. **Remove Grille:** Gently pull down the grille to disengage the springs or unfasten any screws.
3. **Clean:** Wash the grille with mild soap and water. Wipe dry with a soft cloth. Do not use abrasive cleaners.
4. **Reinstall Grille:** Reattach the grille by pushing it back into place until the springs engage or securing screws.

6.2 Cleaning the Fan Assembly

1. **Disconnect Power:** Ensure power is off at the service panel.
2. **Remove Grille:** Follow steps above to remove the grille.

3. **Clean Fan Blades:** Use a vacuum cleaner with a brush attachment or a soft cloth to carefully remove dust and debris from the fan blades and motor housing. Avoid bending the fan blades.
4. **Reassemble:** Reinstall the grille. Restore power at the service panel.

Note: The integrated LED module is designed for long life and typically does not require replacement. If replacement is necessary, contact Broan-NuTone customer support for compatible parts.

7. Troubleshooting

Refer to the table below for common issues and their solutions.

Problem	Possible Cause	Solution
Fan does not operate.	No power to the unit. Loose wiring connection. Motor malfunction.	Check circuit breaker or fuse. Verify all electrical connections are secure (ensure power is off first). Contact customer support if motor is faulty.
Light does not turn on.	No power to the unit. Loose wiring connection. LED module failure.	Check circuit breaker or fuse. Verify electrical connections. Contact customer support for LED module replacement.
Fan is noisy.	Fan blades are dirty or obstructed. Loose mounting. Ductwork obstruction or restriction.	Clean fan blades and housing. Ensure fan housing is securely mounted. Check ductwork for kinks or blockages.
Poor ventilation.	Ductwork obstruction. Fan blades are dirty. Fan is undersized for the room.	Check and clear ductwork. Clean fan blades. Ensure the fan's CFM rating is appropriate for your bathroom size (AE110L is for up to 105 sq. ft.).

8. Specifications

Feature	Detail
Model	AE110L
Air Flow Capacity	110 CFM
Noise Level	1.0 Sones
Recommended Room Size	Up to 105 sq. ft.
Wattage	23.4 watts
Voltage	120 Volts
LED Light	11-Watt, 300K
Product Dimensions (Housing)	5.75"D x 10"W x 9.25"H

Feature	Detail
Grille Dimensions	11-3/4" Length, 12-1/2" Width
Duct Size	4 inches
Installation Type	Room-side retrofit
Certifications	ENERGY STAR, UL Listed
Item Weight	8 Pounds

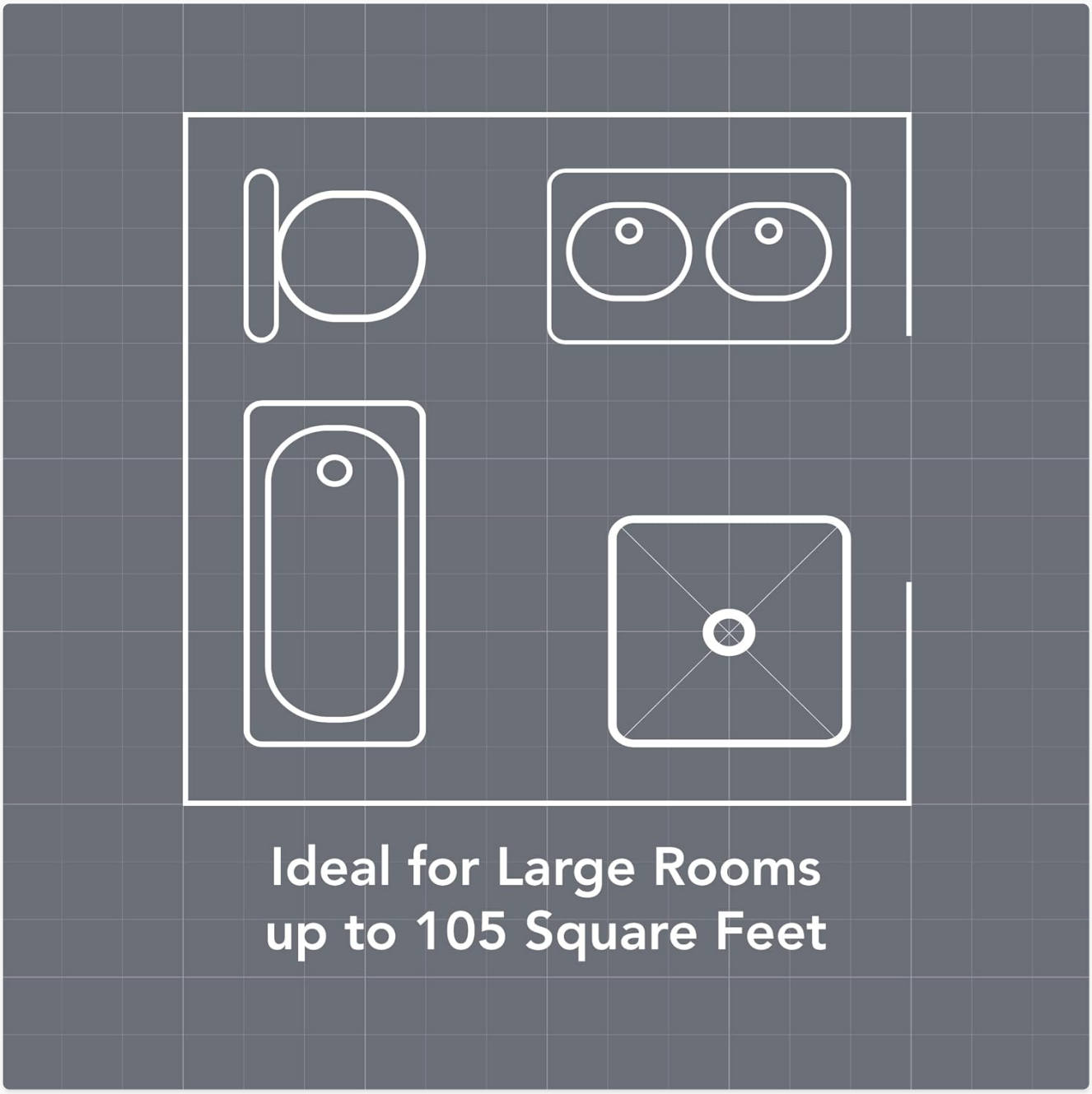


Figure 6: The AE110L is ideal for ventilating large rooms up to 105 square feet.

9. Warranty & Support

9.1 Warranty Information

The Broan-NuTone AE110L comes with a **3-Year Limited Warranty** from the date of original purchase. This

warranty covers defects in materials and workmanship under normal use and service. For full warranty details, please refer to the documentation included with your product or visit the official Broan-NuTone website.

9.2 Customer Support

If you have any questions, require technical assistance, or need to order replacement parts, please contact Broan-NuTone customer support:

- **Website:** Visit www.broan-nutone.com for FAQs, product registration, and support resources.
- **Phone:** Refer to the contact information provided in your product packaging for direct support.

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