

Broan-NuTone AR110LKVV

Broan-NuTone AR110LKVV SurfaceShield Vital Vio Exhaust Vent LED Fan User Manual

Model: AR110LKVV

PRODUCT OVERVIEW

The Broan-NuTone AR110LKVV SurfaceShield Vital Vio Powered Exhaust Vent LED Fan is designed to provide powerful ventilation and surface disinfection in bathrooms and other humidity-prone environments. It features a quiet 1.0 sone operation, an integrated LED light with both everyday white light and a continuous violet antimicrobial light mode, and a sleek CleanCover grille that blends seamlessly with most ceiling designs. This unit is engineered for continuous operation and offers room-side installation for convenience.

IMPORTANT SAFETY INSTRUCTIONS

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 unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
- 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 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.
- Ducted fans must always be vented to the outdoors.
- This unit is not intended for use in areas where children are likely to be present.

PACKAGE CONTENTS

The package includes the following components:

- Exhaust Fan Housing with Blower
- CleanCover Grille with Integrated LED Module
- Non-Metallic Damper/Duct Connector

- Installation Hardware (screws, wire nuts, wire clamps)
- Installation Template
- User Manual

SPECIFICATIONS

Brand	Broan-NuTone
Model Number	AR110LKVV
Air Flow Capacity	110 Cubic Feet Per Minute (CFM)
Noise Level	1 Sone
Product Dimensions	12.25"D x 12.25"W x 5.75"H
Room Type	Bathroom
Special Feature	Antimicrobial Violet Light, Roomside Installation
Voltage	120 Volts
Wattage	10 watts
Mounting Type	Ceiling Mount

SETUP AND INSTALLATION

The Broan-NuTone AR110LKVV fan is designed for easy room-side installation, eliminating the need for attic access in many cases. Always ensure power is turned off at the circuit breaker before beginning any electrical work.

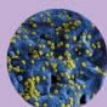
- 1. Prepare the Opening:** Use the provided template to mark and cut the ceiling opening. Ensure the opening is sized correctly for the fan housing.
- 2. Mount the Housing:** Secure the fan housing to the ceiling joists or supporting structure using appropriate fasteners. The foldable mounting ears allow for flexible installation in new construction or retrofit applications.
- 3. Connect Ductwork:** Attach the 4-inch diameter duct to the non-metallic damper/duct connector. Ensure a secure and airtight connection, using ducting tape if necessary.
- 4. Electrical Wiring:** Connect the electrical wiring according to local codes and the wiring diagram in the manual. Use wire clamps and wire nuts as required.
- 5. Install Grille:** Once the housing is securely mounted and wired, attach the CleanCover grille with the integrated LED module. Ensure the spring clips are correctly positioned for a tight fit against the ceiling.



**Gram
Positive
Bacteria**



**Gram
Negative
Bacteria**



Yeast



Virus



Fungi



Without SurfaceShield™
Bacteria colonies grow



With SurfaceShield™
No visible bacteria colonies

SurfaceShield™ Technology

Combined with Broan-NuTone's powerful ventilation kills viruses and offers effective protection against bacteria, mold, and fungi growth in your bathroom or other humidity prone environments.

Figure 1: Product dimensions and fit for 2x6 ceiling construction.

Video 1: Official installation overview for the AR110LKVV SurfaceShield fan. This video demonstrates the key steps for installing the unit.



Figure 2: Room-side connections for simplified installation.

OPERATING INSTRUCTIONS

The Broan-NuTone AR110LKVV fan offers two lighting modes and powerful ventilation:

- **White Light Mode:** Provides bright white light for general illumination and task lighting.
- **Violet Light Mode (SurfaceShield):** Emits a continuous violet light designed to prevent the growth of bacteria, mold, and fungi on surfaces. This mode operates at less than 4 watts, making it energy-efficient for continuous use.
- **Fan Operation:** The fan operates at a quiet 1 sone, effectively removing moisture and steam from bathrooms up to 105 sq. ft.

To switch between light modes and control the fan, use your standard wall switch. Typically, a quick toggle of the switch will alternate between white light, violet light, and off. The fan will activate when either light mode is selected.

Video 2: This video demonstrates the functionality of the Broan-NuTone AR110LKVV, showcasing the white light and violet antimicrobial light features.

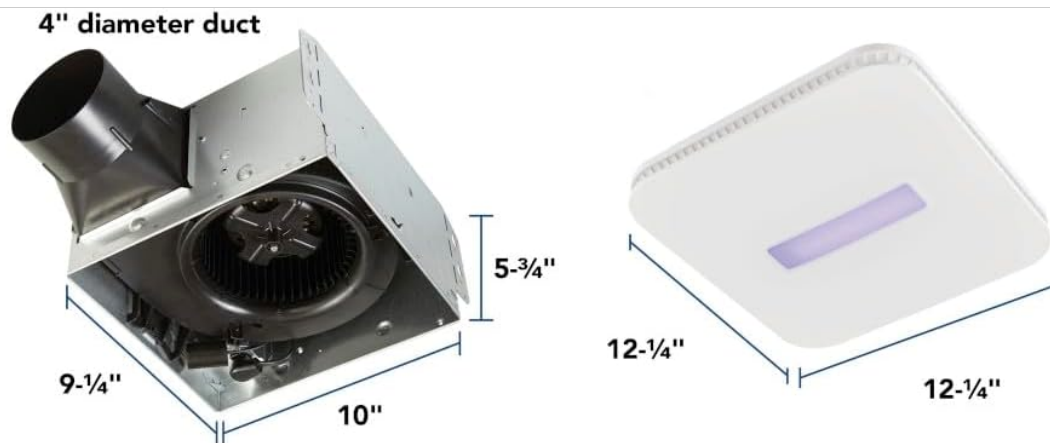


Figure 3: Visual representation of how to toggle between light modes using a standard wall switch.

MAINTENANCE

Regular cleaning and maintenance will ensure optimal performance and longevity of your exhaust fan. Always disconnect power before servicing.

1. **Grille Cleaning:** The CleanCover grille is designed to stay cleaner longer. To clean, gently pull down the grille to detach it from the housing. Wash the grille with mild soap and water, rinse thoroughly, and dry completely before reattaching.
2. **Motor and Blower Cleaning:** Periodically, inspect the motor and blower wheel for dust and debris buildup. Use a soft brush or vacuum cleaner to remove any accumulation. Do not immerse the motor or electrical components in water.
3. **Damper Check:** Ensure the TrueSeal Damper operates freely and is not obstructed, as this helps reduce air leakage and prevents backdrafts.



Fits 2" x 6" ceiling construction.

Most residential dwellings feature at minimum 2" x 6" ceiling construction.



Figure 4: The CleanCover grille is designed for easy removal and cleaning.

TROUBLESHOOTING

If you experience issues with your Broan-NuTone AR110LKVV fan, refer to the following common troubleshooting steps:

- **Fan Not Operating:** Check the circuit breaker and wall switch to ensure power is supplied to the unit. Verify all electrical connections are secure.
- **Light Not Working:** Confirm the wall switch is in the correct position for the desired light mode. If only the violet light is not working, refer to the video below for potential issues.
- **Excessive Noise:** Ensure the fan housing is securely mounted and not vibrating against ceiling joists. Check the blower wheel for any obstructions or debris.
- **Poor Airflow:** Inspect the ductwork for kinks, blockages, or leaks. Ensure the damper is opening fully. Clean the grille and blower wheel if dirty.
- **Grille Not Sitting Flush:** Check the spring clips on the grille. Ensure they are correctly installed and not bent, as demonstrated in the video below.

Video 3: A user demonstrates an issue where the UV light is not functioning as expected. This can help in diagnosing similar problems.

Video 4: A user highlights a potential design flaw with the cover plate, which may prevent it from sitting flush. This video can assist in adjusting or troubleshooting grille fitment.

WARRANTY INFORMATION

The Broan-NuTone AR110LKVV SurfaceShield Vital Vio Exhaust Vent LED Fan comes with a 3-year limited warranty. This warranty covers defects in materials and workmanship under normal use and service. For specific terms and conditions,

please refer to the warranty card included with your product or visit the official Broan-NuTone website.

CUSTOMER SUPPORT

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