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› VIVOHOME Bathroom Exhaust Fan with Light (Model VH1591CA) User Manual

VIVOHOME VH1591CA

VIVOHOME Bathroom Exhaust Fan with Light User Manual

Model: VH1591CA

Brand: VIVOHOME

1. INTRODUCTION

This manual provides instructions for the installation, operation, and maintenance of your VIVOHOME Bathroom Exhaust Fan with Light. This unit is designed to effectively ventilate moisture, smoke, and odors from bathrooms and similar indoor spaces, while providing illumination.



Image 1.1: VIVOHOME Bathroom Exhaust Fan with Light installed in a modern bathroom ceiling, providing both ventilation and illumination.

2. SAFETY INFORMATION

Please read and understand all safety instructions before installation and use. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always disconnect power at the circuit breaker before installing or servicing the fan.
- All wiring must comply with local and national electrical codes. If you are unsure, consult a qualified electrician.
- Do not install this fan in a ceiling with insulation that exceeds the maximum recommended thickness.
- Ensure the fan is securely mounted to a structural element of the building.
- Do not use this fan in areas where flammable gases or vapors may be present.

3. PRODUCT FEATURES

- **Efficient Ventilation:** Provides 110 CFM (Cubic Feet Per Minute) airflow, suitable for rooms 100 to 135 sq. ft. Operates at 900 RPM to effectively remove moisture and odors.
- **Quiet Operation:** Engineered to operate at a low noise level of less than 1 sone, ensuring a peaceful environment.

- **Integrated LED Light:** Features a 10W round LED light with 6000K cool white color temperature and 1000 lumens brightness for ample illumination.
- **Durable Construction:** Aluminum alloy housing provides durability and corrosion resistance. The ABS panel enhances appearance.
- **Check Valve:** An integrated check valve at the air outlet prevents backflow of odors, smoke, and water vapor when the fan is off. It opens automatically when the fan is powered on.
- **Easy Installation:** Designed for straightforward ceiling mount installation with detailed instructions provided. The fan and light can be wired for simultaneous or separate operation.



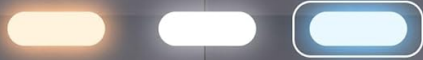
Image 3.1: Internal view of the fan, illustrating the aluminum alloy housing, ABS plastic panel, and the check valve mechanism that prevents backflow.

LED Illumination



6000K

Color Temperature



1000LM

Brightness



Image 3.2: The integrated 10W LED light provides 6000K cool white illumination at 1000 lumens.

4. SPECIFICATIONS

Specification	Value
Model Number	VH1591CA
Air Flow Capacity	110 CFM
Noise Level	1 Sone
Motor Speed	900 RPM
Wattage	45 Watts
Voltage	120 Volts
Light Type	LED
Light Color Temperature	6000K (Cool White)

Light Brightness	1000 Lumens
Product Dimensions (D x W x H)	12.4" x 12.4" x 5.7"
Ceiling Opening Size	9.4" x 10.2"
Duct Connector Diameter	3.8"
Material	Aluminum Alloy (Housing), ABS (Panel)
Mounting Type	Ceiling Mount

Specifications

- Package Size: 15.7" x 14.3" x 9.4"
- Package Weight: 9.4 lb



Image 4.1: Detailed dimensions of the fan unit and the recommended ceiling opening for installation.

5. INSTALLATION

Follow these steps for proper installation. Ensure power is disconnected before beginning.

1. **Prepare Ceiling Opening:** Mark and cut a ceiling opening of 9.4 inches by 10.2 inches. Ensure there is sufficient space above the ceiling for the fan housing and ductwork.
2. **Mount Fan Housing:** Insert the fan housing into the prepared opening. Secure the housing to a ceiling joist or suitable structural support using appropriate fasteners.

3. **Connect Ductwork:** Connect a 4-inch diameter duct to the fan's duct connector. Secure with duct tape or clamps to ensure an airtight seal.
4. **Electrical Wiring:** Refer to the wiring diagram below for electrical connections. Connect the fan and light wires to your household electrical supply. Ensure all connections are secure and insulated.
5. **Attach Grille/Panel:** Connect the LED light's electrical connector. Secure the grille/panel to the fan housing using the provided springs or clips.

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Video 5.1: An official VIVOHOME video demonstrating the installation process of the 110 CFM Bathroom Exhaust Fan with Light, including preparing the ceiling opening, mounting the unit, and connecting the grille.

6. WIRING DIAGRAM

The fan unit features a 4-wire port for electrical connections. Ensure correct wiring to prevent damage and ensure proper function.

- **Ground Wire:** Typically yellow or green/yellow. Connect to the household ground wire.
- **Lead Wire (Fan):** Typically black. Connect to the switched hot wire for fan operation.
- **Lead Wire (LED):** Typically brown. Connect to the switched hot wire for light operation.
- **Neutral Wire:** Typically white. Connect to the household neutral wire.

You can wire the fan and light to operate independently using separate switches, or together using a single switch.



Image 6.1: Wiring connections for the fan and light, showing the color-coded wires for ground, fan power, LED power, and neutral.

7. OPERATION

Once installed and wired correctly, operate the fan and light using your wall switches. Depending on your wiring configuration, you can control the fan and light either simultaneously or independently.

- **Fan Operation:** Turn on the switch connected to the fan's lead wire to activate ventilation.
- **Light Operation:** Turn on the switch connected to the LED light's lead wire to activate illumination.

8. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your exhaust fan. Always disconnect power before performing any maintenance.

- **Cleaning the Grille/Panel:** Periodically remove the grille/panel and wash it with mild soap and water. Rinse thoroughly and dry completely before reattaching.
- **Cleaning the Fan Blades:** With the power off, gently wipe the fan blades and interior of the housing with a damp cloth to remove dust and debris. Do not use abrasive cleaners.

- **Motor:** The motor is permanently lubricated and requires no additional oiling.

9. TROUBLESHOOTING

If you encounter issues with your fan, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Fan does not operate	No power, loose wiring, faulty switch	Check circuit breaker. Verify all wiring connections. Test the switch.
Light does not illuminate	No power, loose wiring, faulty LED connector	Check circuit breaker. Verify light wiring. Ensure LED connector is fully seated.
Fan is noisy	Loose mounting, debris in fan blades, damaged motor	Ensure fan housing is securely mounted. Clean fan blades. If noise persists, contact support.
Poor ventilation	Blocked ductwork, dirty fan blades, incorrect room size	Check ductwork for obstructions. Clean fan blades. Ensure fan capacity matches room size.

10. WARRANTY AND SUPPORT

For warranty information or technical support, please contact VIVOHOME customer service. Keep your purchase receipt as proof of purchase.

Contact information can typically be found on the VIVOHOME official website or on the product packaging.