Quietcool QC CL-3100 RF

Quietcool QC CL-3100 RF Classic Advanced Whole House Fan User Manual

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your Quietcool QC CL-3100 RF Classic Advanced Whole House Fan. This advanced whole house fan system is designed to cool and ventilate homes up to 1,608 sq. ft. by utilizing the principle of ventilation cooling, offering an energy-efficient alternative to traditional air conditioning.
Please read this manual thoroughly before installation and operation to ensure safe and efficient use of your Quietcool fan.

2. Safety Information

Always prioritize safety during installation and operation. Failure to follow these instructions may result in electric shock, fire, or personal injury.

- **Electrical Safety:** Ensure power is disconnected at the circuit breaker before any installation or maintenance. All wiring should comply with local electrical codes and be performed by a qualified electrician if you are not proficient.
- **Attic Safety:** Exercise caution when working in the attic. Wear appropriate personal protective equipment (PPE) including gloves, eye protection, and a dust mask. Ensure stable footing on joists to avoid falling through the ceiling.
- **Ventilation Requirements:** Adequate attic ventilation is crucial for proper fan operation and to prevent moisture buildup. This model requires 4.17 sq. ft. of net free attic venting. Consult local building codes for specific requirements.
- **Obstruction-Free Operation:** Keep the fan and ducting free from obstructions, including insulation, to ensure optimal airflow and prevent motor overheating.
- **Window Locks:** Use the included window locks to secure windows when the fan is in operation, preventing accidental closure or security breaches.

3. Package Contents

Verify that all components are present before beginning installation:

- Quietcool QC CL-3100 RF Fan Motorhead

- Insulated Ducting
- Damper Box with R5 Damper Doors
- Removable Grille (14 in. x 22 in.)
- Wireless RF Control Kit with Glass Wireless Switch
- 20-Foot Power Cord
- Mounting Hardware (hanger straps, pan-head screws, all-purpose screws)



Figure 3.1: Quietcool QC CL-3100 RF fan system components.

4. Setup and Installation

The Quietcool QC CL-3100 RF is designed for a simple 1 to 2-hour installation, requiring no framing or joist-cutting for standard 16 or 24 on-center joists.

4.1 Pre-Installation Checks

- **Local Codes:** Always check local building codes before installing any appliances.
- **Attic Access:** Ensure safe and clear access to your attic space.
- **Clearance:** Verify a minimum of 30 inches of clearance height in the attic where the fan will be hung.
- **Attic Venting:** Confirm your attic has at least 4.17 sq. ft. of net free attic venting.

4.2 Choosing a Location

For whole-home ventilation, install the fan centrally, such as above stairs or in a hallway. For targeted cooling, like a bedroom, install it above the bedroom door or in a master bathroom.

4.3 Preparing the Ceiling Opening

- In the attic, clear any insulation around the planned ceiling cut-out area.
- From the attic, use an awl to mark four reference holes in the drywall based on the damper box template.
- Downstairs, use the template to connect the reference holes and mark the cut-out area (14 in. x 22 in.).
- Carefully cut out the marked section of drywall using a drywall saw.

4.4 Installing the Damper Box and Grille

- The damper box is designed to fit 16-inch or 24-inch on-center joists. If your rafters are 16 inches on center, remove both damper box flanges on the side that will mount to the ceiling joist. If 24 inches on center, remove one flange. Use a flathead screwdriver to remove flanges.
- Place the damper box over the ceiling cut-out. Fasten it to the joist using the pre-existing holes and included all-purpose screws.
- Install the ceiling grille into the damper box using the included white Philips screws.

4.5 Mounting the Fan Motorhead and Ducting

- If attic access is difficult, detach the duct from the motorhead, pass both through the ceiling cut-out, and then reattach the duct to the motorhead in the attic. The housing is designed to fit through the cut-out opening.
- Using the innovative hanger strap eyelet holes, install two all-purpose screws into the joist where you will hang the fan, screwing them in almost all the way.
- Hang the straps onto the screw heads and tighten the screws. Ensure the motorhead is positioned 3 to 6 feet from the damper box.
- Attach the duct to the damper box using the convenient duct clasps.
- Using pan-head screws and nylon strap material, wrap a strap around the duct and create a rough 90-degree bend. This helps reduce vibration and noise.
- Ensure the fan blade spins freely before proceeding.

4.6 Electrical Connection

Connect the fan to a power source according to local electrical codes. The fan includes a 20-foot power cord and a Wireless RF Control Kit for convenient operation.

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Video 4.1: Detailed guide on installing a Whole House Fan. This video provides visual steps for the installation process.



Figure 4.1: Quietcool fan installed in an attic, showing the motorhead suspended and ducting connected to the damper box.

5. Operating Instructions

The Quietcool QC CL-3100 RF fan operates by drawing cooler outside air into your home and exhausting warmer indoor air through your attic vents. This process cools your home and attic, providing a comfortable living environment.

5.1 When to Operate Your Fan

- Operate the fan when the outside air temperature is cooler than the inside air temperature. This typically occurs during the early evening, overnight, and early morning hours.
- Open windows in the rooms you wish to cool to allow fresh, cool air to enter your home. The fan will draw this air through your living space and into the attic.
- For whole-home cooling, open windows throughout the house. For targeted cooling, open windows in specific rooms.

5.2 Using the Wireless RF Control Kit

The Wireless RF Control Kit allows you to manage your fan's operation conveniently:

- **Power On/Off:** Use the ON/OFF button to start or stop the fan.
- **Speed Settings:** Select between High (H), Medium (M), and Low (L) speeds to adjust airflow.
- **Countdown Timer:** Set the fan to run for a specific duration (1, 2, 4, 8, or 12 hours) using the timer function. The fan will automatically shut off after the set time.



Figure 5.1: Wireless RF Control Kit for convenient fan operation.

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Video 5.1: Learn more about the QuietCool Classic Whole House Fan and its benefits.

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Video 5.2: An explanation of how a Whole House Fan works to cool your home.

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Video 5.3: Understand scenarios where a Whole House Fan can be more effective than traditional AC.

6. Maintenance

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

- **Grille Cleaning:** The high airflow grille is removable for easy cleaning. Periodically remove the grille and clean it with a damp cloth to prevent dust buildup and maintain airflow.
- **Attic Inspection:** Annually inspect the fan and ducting in the attic for any obstructions, loose connections, or damage. Ensure insulation remains clear of the fan and damper box.



Figure 6.1: The removable grille allows for easy cleaning to maintain optimal airflow.

7. Troubleshooting

If you encounter issues with your Quietcool fan, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
Fan does not turn on	No power, wireless control issue, fan motor issue	Check circuit breaker. Ensure wireless control has power (batteries). Verify all connections are secure.
Low airflow	Obstructed grille/duct, insufficient open windows, inadequate attic venting	Clean grille. Ensure ducting is clear of insulation. Open more windows. Verify sufficient attic venting.
Excessive noise/vibration	Loose mounting, ducting obstruction, fan blade imbalance	Check fan mounting straps and screws. Ensure ducting is not touching joists. Inspect fan blades for damage or debris.
Fan runs but home is not cooling	Outside air is not cool enough, insufficient open windows, poor home insulation	Operate when outside air is cooler. Open more windows. Consider improving home insulation.

8. Specifications

Feature	Specification
Model Name	QC CL-3100 RF
Air Flow Capacity (High)	3126 CFM
Air Flow Capacity (Low)	2847 CFM
Coverage Area	Up to 1,608 SQFT
Wattage (High)	299 Watts
Wattage (Low)	256 Watts
Voltage	120 Volts (AC)
Control Method	Wireless RF Control Kit (Remote)
Number of Power Levels	2
Motor Type	PSC
Damper Box R-Value	R5
Ceiling Cut-out Dimensions	14 in. x 22 in.
Product Dimensions (Fan Unit)	38"D x 20"W x 38"H

Feature	Specification
Item Weight	54 pounds
Required Attic Venting	4.17 sq. ft. Net Free Area

9. Warranty and Support

9.1 Warranty Information

The Quietcool QC CL-3100 RF Whole House Fan comes with a**10-year motor warranty**, reflecting our commitment to quality and durability. Please retain your proof of purchase for warranty claims.

9.2 Customer Support

For any questions, technical assistance, or warranty inquiries, please contact Quietcool customer support. Our team is dedicated to ensuring your satisfaction and providing expert guidance.
Visit the QuietCool Store for more information and resources.

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