



MODELS: DRND110-BN & DRND110-ORB

INSTALLATION MANUAL AND USER GUIDE



Bathroom Ventilation Fan with Light

READ AND SAVE THESE INSTRUCTIONS

This residential series bathroom fan uses state-of-the-art technology providing superior, long-life performance for your room ventilation needs.

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GENERAL SAFETY INFORMATION AND WARNINGS

For your safety and to ensure proper performance of the unit, it is very important to read these instructions carefully before installation. Failure to comply with the instructions contained herein could result in personal injury or property damage. We recommend that you keep this booklet for future reference. All units should be installed by a licensed electrician.

1. Electrical service supply must be 120V 60Hz.
2. Do not install where the air temperature will exceed 40° C (104° F).
3. Do not bend or kink the power wires.
4. Follow all local safety and electrical codes, as well as requirements for NEC (National Electrical Code) and OSHA (Occupational Safety and Health Act).
5. Always disconnect the power supply prior to servicing the fan, motor or junction box.
6. Protect the electrical wires from sharp edges, oil, grease, hot surfaces, chemicals, or other objects.
7. Do not install the unit where ducts where the airflow can be severely restricted.
8. There should always be an adequate air supply to the vented area.
9. This ventilating fan is approved for use over a bathtub or shower when installed in a GFCI (Ground Fault Circuit Interrupter)-protected circuit. The control device should not be installed within reach of the bathtub or shower.
10. Do not use to exhaust hazardous or explosive vapors.
11. Disconnect the appliance from the power supply before servicing.
12. Do not use this fan with any solid-state control device. Such as a remote control, dimmer switch, or certain timers. Mechanical timers are not solid state devices.
13. This unit must be properly grounded.
14. Do not install in a cooking area. (See Fig.A)

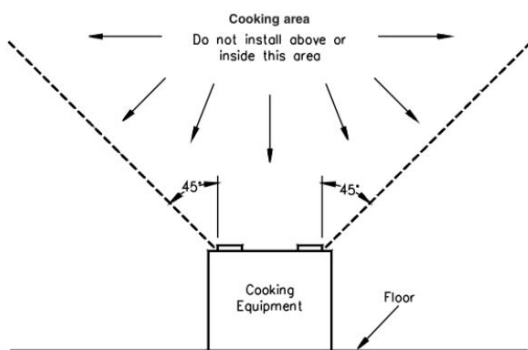


Fig.A

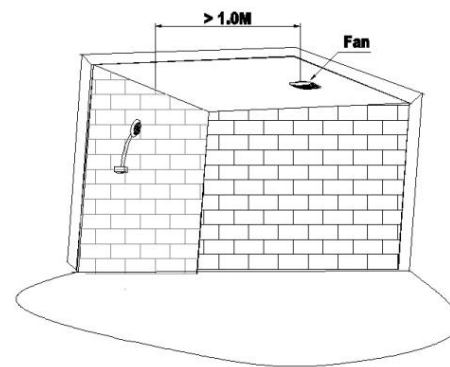


Fig.B

15. To reduce risk of fire and to properly exhaust air, be sure to duct air outside - Do not vent exhaust air into spaces within walls or ceilings or into attics, crawl spaces, or garages.
16. The fan is intended to be mounted at least 7 feet (2.1m) above the floor.

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



17. Use this unit in the manner intended by the manufacturer. If you have any questions, please call Customer Support at (888) 930-8528.
18. Installation work must be carried out by qualified person(s) in accordance with all local and safety codes, including the rules for fire-rated construction.




19. Sufficient air supply is required for proper combustion and the exhaustion of gasses through the chimney (flue) of fuel burning equipment to prevent back-drafting. See the standards of NFPA (National Fire Protection Association) and ASHRAE (American Society for Heating Refrigeration and Air Conditioning Engineers) and the local building code authorities.
20. Do not install in a ceiling with insulation greater than R40.
21. Exercise care not to damage existing wiring when cutting or drilling into walls or ceilings.
22. Prior to servicing or cleaning this unit, shut off power supply at the panel and lock to prevent the power from being turned on. If the panel cannot be locked, clearly mark the panel with a warning tag not to turn on the power.
23. If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application. When the fan is going to install in the bathroom, the fan and the tub need to be more than 1.0 meter between each other, the fan required to install at the other side of the tub in ceiling. Acceptable for use over a bathtub or shower when installed in a GFCI protected branch circuit. (See Fig.B)
24. The product is not intended for connection to rigid metal conduit. For flexible conduit use only.
25. Duct work should be installed in as straight a line as possible, with minimum bends.
26. Duct work size must be a minimum of the discharge and should not be reduced.
27. This unit is equipped with a built-in thermal cut-off for safety and to prolong the life of the motor.



LIST OF INCLUDED PARTS AND ACCESSORIES

NOTE: Unpack and carefully remove unit from carton. Refer to the supplies and parts list to verify that all parts are present. Please email Customer Support at support@strategicretailsolutions.com to request missing or replacement parts.

Part #	Part Name/Photo	Qty
1	 <p>Bath fan housing</p>	1
2	 <p>Bath fan grille</p>	1

Part #	Part Name/Photo	Qty
3	 <p>Bath fan shade</p>	1
4	 <p>M4*30</p>	8

Part #	Part Name/Photo	Qty
5	 M4*12	2
6	 12" Suspension bracket	2
7	 14" Extension bracket	2

Part #	Part Name/Photo	Qty
8	 Grille and shade mounting hardware	1
9	 M4*10	2

LIST OF ADDITIONAL TOOLS/SUPPLIES REQUIRED FOR INSTALLATION

- ☒ Safety glasses
- ☒ 4-in. round duct, elbows if needed, installation tools and other supplies including foil duct tape or 4-in. clamp to secure to fan housing
- ☒ Switch(es) to operate fan and lights
- ☒ Phillips screwdriver
- ☒ Tape measure
- ☒ Utility knife or saw for cutting drywall
- ☒ Wire cutter/stripper
- ☒ Wire nuts
- ☒ Ladder

PLANNING INSTALLATION

When installing the ventilation fan in a new construction site, install the main body of the fan and ductwork during the rough-in construction of the building. The grille should be installed after the finished ceiling is in place. Use the dimensions provided in this manual to determine the required hole size for the ceiling.

The ducting from this fan to the outside of the building has a strong effect on the airflow, noise and energy-use of the fan. Use the shortest, straightest duct routing possible for best performance and avoid installing the fan with smaller ducts than specified in this manual. Insulation around the ducts can reduce energy loss and inhibit mold growth. Fans installed with existing ducts may not achieve their rated airflow. Do not install the

ventilation fan in areas where the ductwork will require configurations as shown in Fig. 1 below.

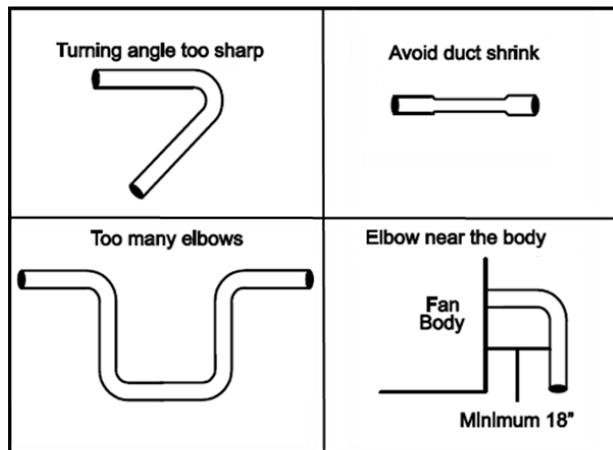


Fig. 1

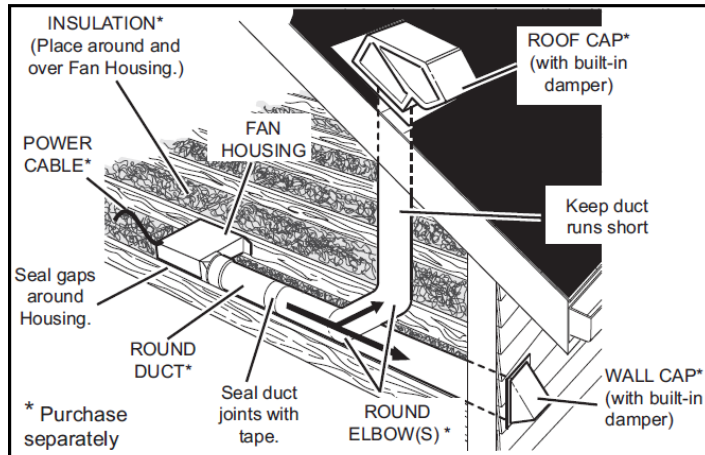


Fig. 2

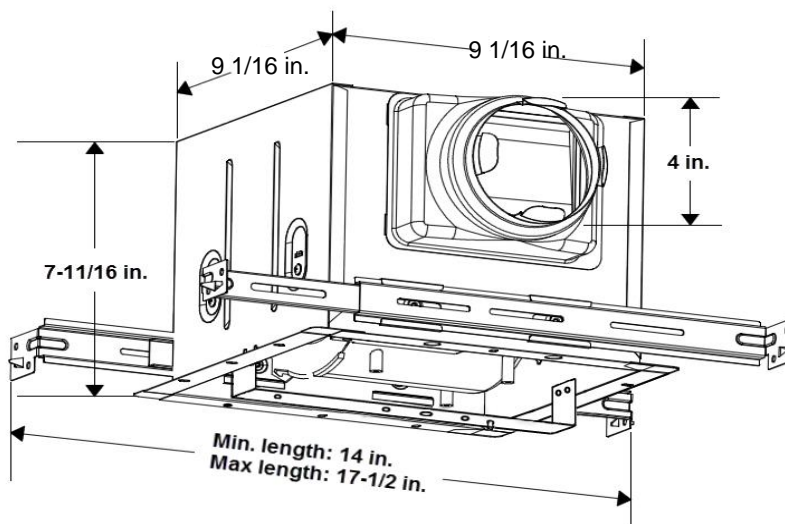
Recommended installation includes insulating around ductwork and the fan housing to minimize heat loss (see Fig. 2 above). Seal all gaps around the housing with caulk or other similar material to inhibit air leakage to the exterior of the thermal envelope of the building. Rigid sheet metal duct and the shortest path to the outside will minimize static pressure losses and promote adequate air flow.

SPECIFICATIONS

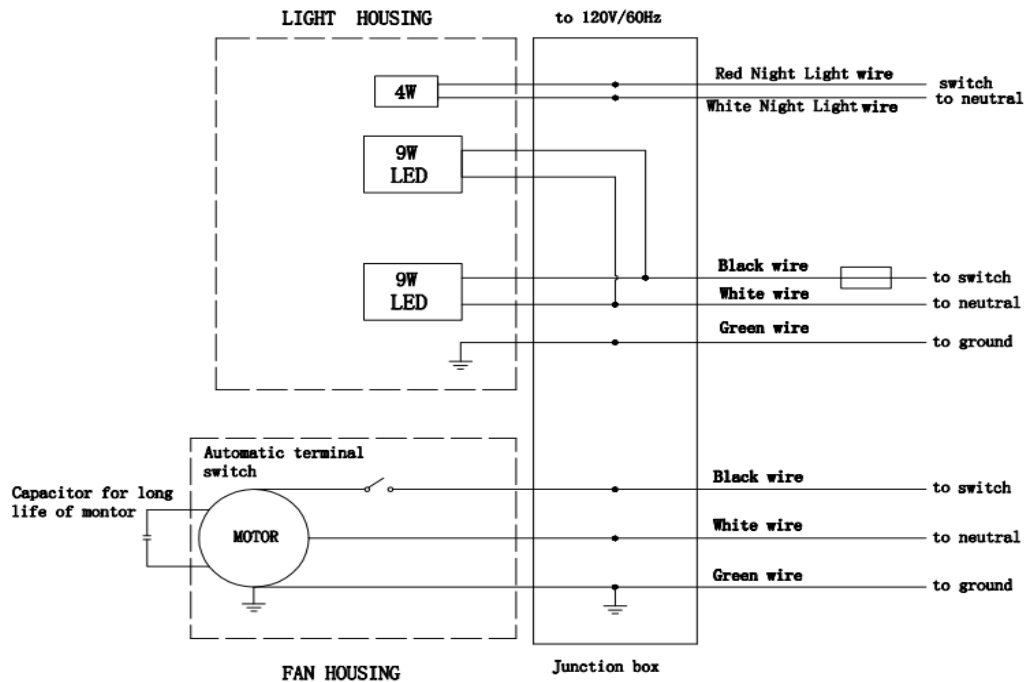
Model No.	Air CFM	V	Hz	Duct Diameter	Noise (Sones)
DRND110-BN DRND110-ORB	110 CFM	120	60	4 in. (10 cm)	1.5

DIMENSIONS

Ceiling Opening – D	Ceiling Opening – W x L	Housing Dimension – W x L	Housing Dimension - D	Grille Dimension
8 1/16 in. (20.5 cm)	9 1/4 in. x 9 1/4 in. (23.5 cm x 23.5 cm)	9 1/16 in. x 9 1/16 in. (23 cm x 23 cm)	7 11/16 in. (19.5 cm)	15 1/4 in. x 15 1/4 in. (38.7 cm x 38.7 cm)



WIRING DIAGRAM



FAN HOUSING INSTALLATION (DIRECT JOIST MOUNTING OR SUSPENSION BRACKET JOIST MOUNTING)

- Check the area above installation location to be sure that:
 - a. Ductwork can be run and there is sufficient area for proper ventilation;
 - b. Wiring can be run to the planned location (wires from the power supply to the unit should not be smaller than size 14 AWG);
 - c. There will be access to ductwork and wiring for inspection and future maintenance; and
 - d. No wiring or other obstructions will interfere with installation.

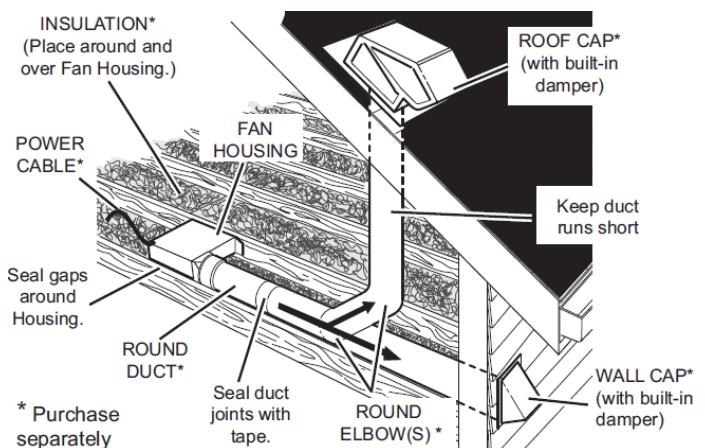
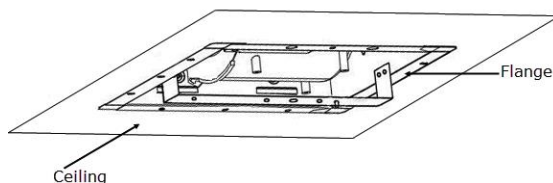
For installation in existing construction:

- Installing the fan housing in an existing building requires access (attic or crawl space) in the planned installation location above the existing ductwork and wiring.
- Inspect existing ductwork and wiring before proceeding with installation.

Step 1: Select the location for your fan in the ceiling.

For optimal performance, plan for the shortest possible duct with the fewest elbows.

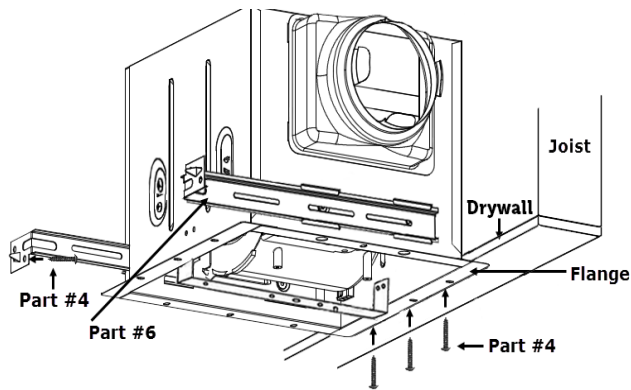
When positioning fan housing for installation, flange of housing trim ring must be level with the outside of the drywall and visible from the room below.



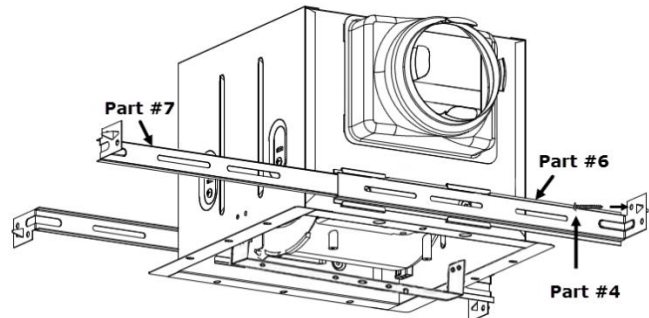
* Purchase separately

Step 2:

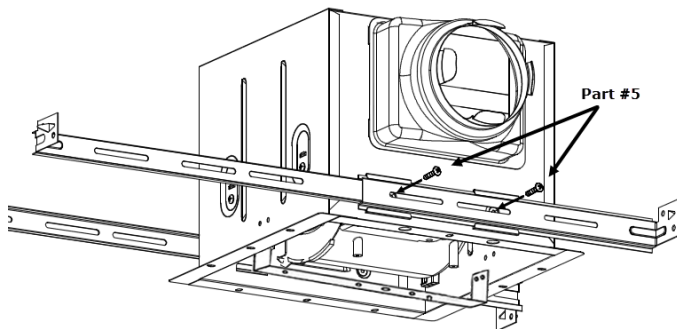
Direct Joist-Mount: Slide suspension brackets (Part #6) into slots in the fan housing. Using wood screws (Part #4), secure housing flange to joist, then secure suspension brackets to joist on other side. If spacing between joists is greater than 16", add extension brackets (Part #7, see diagram right).



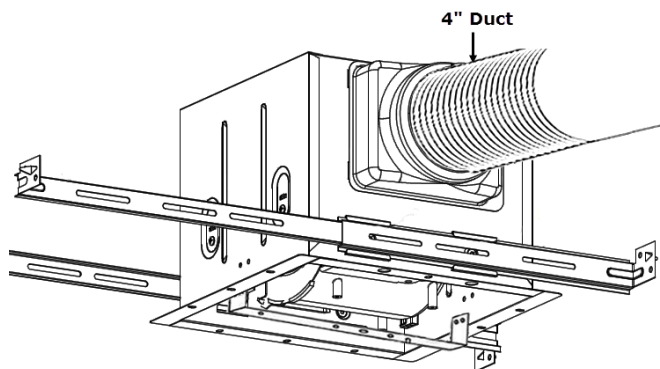
Suspension Bracket-Mount: Slide suspension brackets (Part #6) into the fan housing. If spacing between joists is greater than 16", use extension brackets (Part #7). Secure brackets to joists on both sides using wood screws (Part #4).



Step 3: To secure brackets to fan housing, insert machine screws (Part #5). Tighten machine screws to prevent housing vibration while fan is in operation.



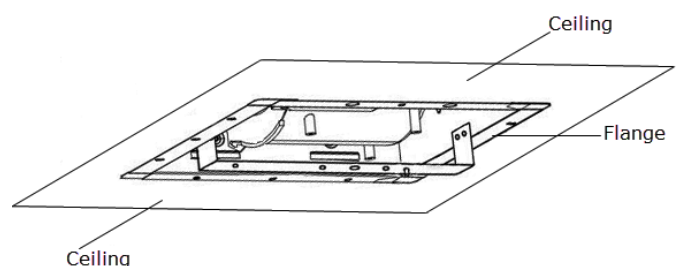
Step 4: Install a 4-in. circular duct and secure to housing with foil duct tape or clamp.



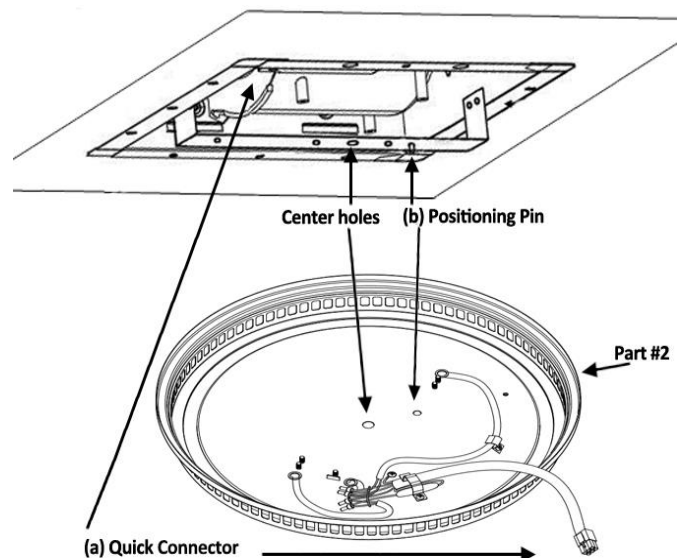
Step 5: Disconnect the power supply before proceeding with Step 5. Run 120V 60Hz house wiring (with ground) from wall switches to fan location. Remove junction box cover and, using wire nuts, connect house wires to unit wires. Refer to Wiring Diagram on page 4.

- **Green wires** are ground wires. House ground may be green or bare.
- **White wires** are neutral. They carry power back to the service panel.
- **Black wires** are hot. They carry power from the panel to the fan.
- **Red wire** is night light hot wire. It carries power from the panel to the night light.

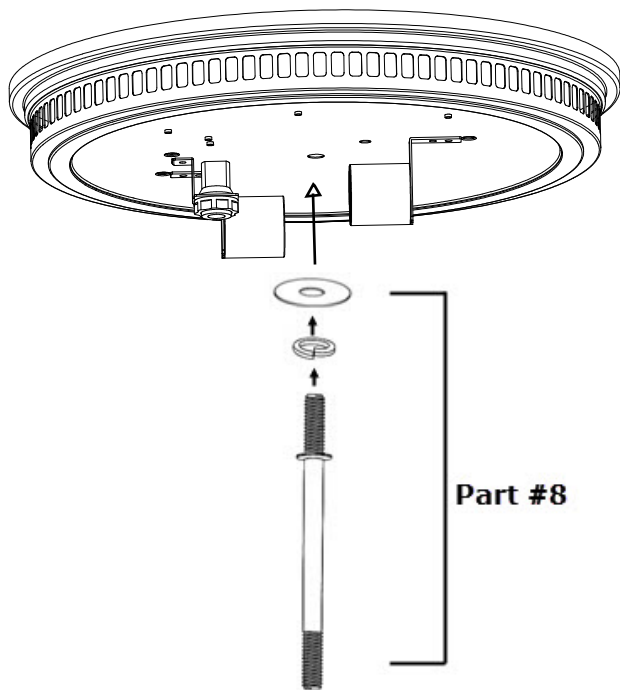
Step 6: Finish ceiling. Housing rim should overlap the ceiling board and be visible from the room below.



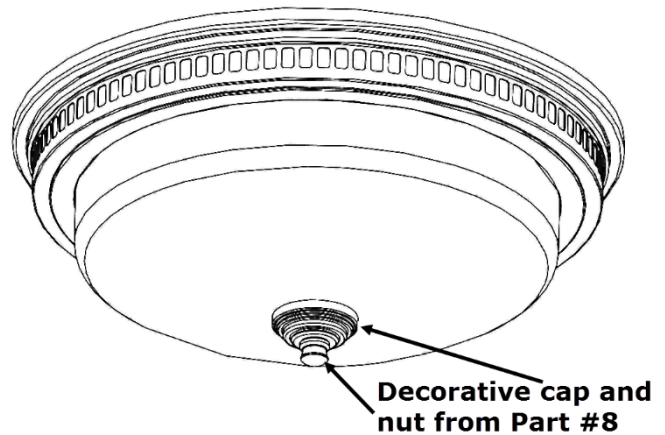
Step 7: Before attaching grille (Part #2) to housing, plug quick connector (a) on grille into fan housing receptacle. Position the grille on fan housing, using the positioning pin (b) to guide it into place, and line up grille and housing center hole.



Step 8: Use hardware (Part #8) to secure grille to the fan housing, (a) place washer over center hole on grille, (b) add lock nut, and (c) insert the long bolt and tighten.



Step 9: Attach shade (Part #3) using decorative plate and nut (Part #8).



CLEANING THE VENTILATION FAN

Cleaning the unit periodically is advisable since dust, molds, grease, and other dirt particles can affect the conductivity of the air in the unit.

- 1) Clean glass shade with a soft towel or paper towels and glass cleaner (avoid harsh detergent).
- 2) Clean inside of unit with a vacuum cleaner. Do not use liquid cleaner as the motor should not come in contact with any liquid.
- 3) Put the grille back in place.

WARRANTY

Liftbridge Kitchen & Bath fan Model DRND110BN and DRND110ORB are covered by a 3-year limited warranty. The manufacturer warrants the bath fan motor and all other parts/components on this bath fan present at the time of shipment from the factory to be free from defects in workmanship and material for 3 years after the date of purchase by the original purchaser, when properly installed and under normal conditions of use. To obtain warranty service you must register your product as directed below. This warranty does not cover products that have been abused, altered, damaged, or misused. The manufacturer DISCLAIMS all other implied or express warranties including warranties of merchantability and/or fitness for a particular purpose. As some states do not allow exclusions or limitations on an implied warranty, the above exclusions and limitations may not apply. This warranty gives you specific rights, and you may have other rights that vary from state to state.

THIS WARRANTY IS LIMITED TO REPAIR OR REPLACEMENT OF DEFECTIVE PARTS ONLY, AND ANY COSTS RELATED TO SAME SHALL NOT EXCEED THE USER'S COST OF THE PRODUCT. MANUFACTURER ALSO RETAINS THE OPTION OF REFUNDING PURCHASE PRICE AS FULL SETTLEMENT OF ANY WARRANTY CLAIM.

Any changes related to installation, repair, replacement, or damages related to same are excluded.

CUSTOMER SUPPORT

For Customer Support please call us at **(888)930-8528**, or email **support@strategicretailsolutions.com**. Please provide your bath fan model number when contacting Customer Support.

PRODUCT REGISTRATION

To warranty your fan, complete registration by using either of the following methods:

Fill out the registration form on our website, at www.strategicretailsolutions.com/#productreg

or

Fill out the warranty registration below and mail it to this address:

Strategic Retail Solutions

Attn: Bath Fan Registration

P.O. Box 528

Sheboygan, WI 53082

LIFTBRIDGE KITCHEN & BATH FAN WARRANTY REGISTRATION

First Name: _____ Last Name: _____

Street Address: _____

City: _____ State: _____ Zip: _____

Phone: () _____ Date of Purchase: _____

Model Number: **DRND110-BN/DRND110-ORB**