

# USER'S MANUAL

## BUCKET FAN SERIES BUCKET FAN WHISPER SERIES

**Bucket Fan 420**  
**Bucket Fan 1055**  
**Bucket Fan 1460**  
**Bucket Fan Whisper 420**  
**Bucket Fan Whisper 1055**  
**Bucket Fan Whisper 1460**



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### INTRODUCTION

This manual will provide you with installation, operation, and service instructions, as well as technical data of the Bucket Fan series and Bucket Fan Whisper series.

### USE

Bucket Fans are used for equalizing the floor-to-ceiling temperature. This provides a more comfortable thermal environment for occupants, while at the same time reducing energy costs. In the cold months the overheated air at the roof is gently directed to the floor where it is needed and wanted. During the warm months for buildings that are air conditioned, Bucket Fans help push the cold air coming from the registers at the ceiling to occupant level.

### WHAT'S INCLUDED IN THE BOX

- One Bucket Fan or Bucket Fan Whisper
- One Users Manual
- One set of Hanging/Safety Gripples
- Controller (if ordered)

### DESIGNATION KEY EXAMPLE

Bucket Fan 420 – air destratification fan producing 420 CFM

Bucket Fan Whisper 420 – air destratification fan with isolated casing producing 420 CFM

### SIZE RANGES

| Model                   | Dimensions [inches]              |                                 |                                  |                                 |                                  | Weight [lbs] |
|-------------------------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|----------------------------------|--------------|
|                         | A                                | H                               | H1                               | D                               | D1                               |              |
| Bucket Fan 420          | 15 <sup>3</sup> / <sub>16</sub>  | 20 <sup>3</sup> / <sub>16</sub> | 15 <sup>3</sup> / <sub>16</sub>  | 13 <sup>7</sup> / <sub>16</sub> | 10 <sup>3</sup> / <sub>16</sub>  | 12           |
| Bucket Fan 1055         | 17 <sup>1</sup> / <sub>4</sub>   | 23 <sup>7</sup> / <sub>8</sub>  | 17 <sup>15</sup> / <sub>16</sub> | 15 <sup>7</sup> / <sub>16</sub> | 12 <sup>3</sup> / <sub>16</sub>  | 15.2         |
| Bucket Fan 1460         | 19 <sup>3</sup> / <sub>16</sub>  | 27 <sup>5</sup> / <sub>16</sub> | 20 <sup>5</sup> / <sub>16</sub>  | 17 <sup>3</sup> / <sub>8</sub>  | 14 <sup>3</sup> / <sub>16</sub>  | 20.3         |
| Bucket Fan Whisper 420  | 17 <sup>15</sup> / <sub>16</sub> | 24 <sup>5</sup> / <sub>8</sub>  | 18 <sup>7</sup> / <sub>16</sub>  | 15 <sup>1</sup> / <sub>8</sub>  | 11 <sup>7</sup> / <sub>8</sub>   | 24.3         |
| Bucket Fan Whisper 1055 | 19 <sup>15</sup> / <sub>16</sub> | 27 <sup>5</sup> / <sub>8</sub>  | 20 <sup>3</sup> / <sub>8</sub>   | 17 <sup>1</sup> / <sub>16</sub> | 13 <sup>7</sup> / <sub>8</sub>   | 32           |
| Bucket Fan Whisper 1460 | 21 <sup>7</sup> / <sub>8</sub>   | 30 <sup>9</sup> / <sub>16</sub> | 22 <sup>3</sup> / <sub>8</sub>   | 19 <sup>1</sup> / <sub>16</sub> | 15 <sup>13</sup> / <sub>16</sub> | 37.5         |

| Model                     | Bucket Fan 420<br>Bucket Fan Whisper 420 | Bucket Fan 1055<br>Bucket Fan Whisper 1055 | Bucket Fan 1460<br>Bucket Fan Whisper 1460 |
|---------------------------|--|--|--|
| Volts [V / 60 Hz]         | 120                                      | 120  | 120  |
| Max. watts                | 60                                       | 94   | 162  |
| Max. Amps                 | 0.51                                     | 0.8  | 1.38                                       |
| Air flow [CFM]            | 420                                      | 1055                                       | 1460                                       |
| RPM                       | 1700                                     | 1675                                       | 1685                                       |
| Max. operating temp. [°F] | 140                                      | 140  | 140  |

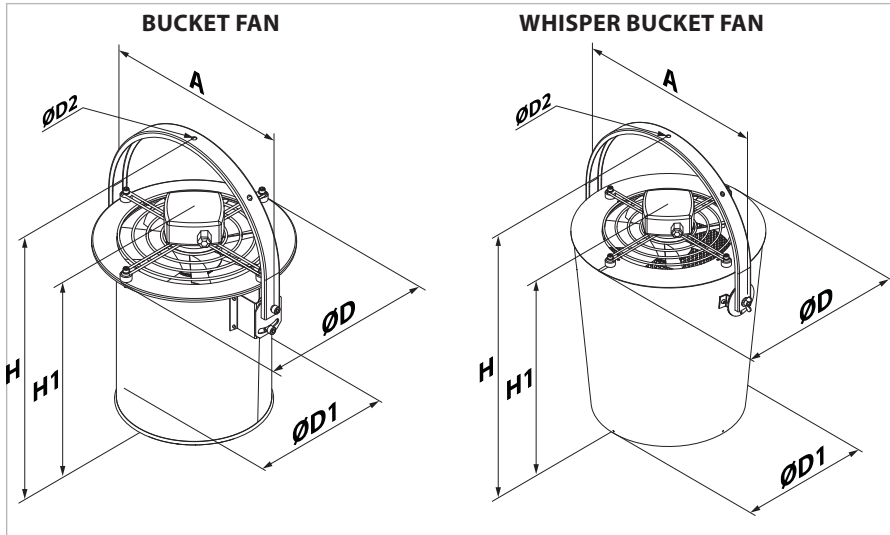


Fig. 1

### SAFETY REQUIREMENTS

READ AND SAVE THESE INSTRUCTIONS.

**WARNING:** RISK OF ELECTRIC SHOCK, DISCONNECT POWER BEFORE SERVICING“;

**WARNING:** TO REDUCT THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT USE THIS FAN WITH ANY SOLID STATE SPEED CONTROL DEVICE

**CAUTION:** THIS UNIT HAS AN UNGUARDED IMPELLER. DO NOT USE IN LOCATIONS READILY ACCESSIBLE TO P EOPLE OR ANIMALS

During installation and operation, observe all codes and safety standards for your locale. Always make sure the electricity is disconnected at the main power source prior to connection, adjustment, servicing and/or repair operations.

Electrical connections should only be done by a qualified electrician.

Before connecting and powering up the Bucket Fan make sure that the unit is free of visible damage and there are no foreign objects inside the unit that can damage the motor and/or impeller blades.

Misuse of the Bucket Fan and/or any unauthorized design alterations or modifications voids the warranty. VENTS US assumes no liability for misuse or and/or any unauthorized design alterations or modifications.

- Under no circumstances should the Bucket Fan be operated in an environment with temperatures exceeding the specifications indicated on the motor name plate.
- The fan should never be operated in area where there are hazardous and/or explosive vapors .
- Make sure power is off before attempting installation.



Whenever a Bucket fan is first installed, serviced, moved, or repaired the unit must be disconnected from the main power source.

**MOUNTING AND  
INSTALLATION GUIDELINES**

**Prior to Installation:**

Read and understand this entire manual. Should you have any questions before, during, or after installation please call your seller or contact VENTS at 888-640-0925 or [install@VentsUS.com](mailto:install@VentsUS.com).

Check the product for any damage that may have occurred during shipping.

Rotate the impeller by hand to ensure it turns smoothly.

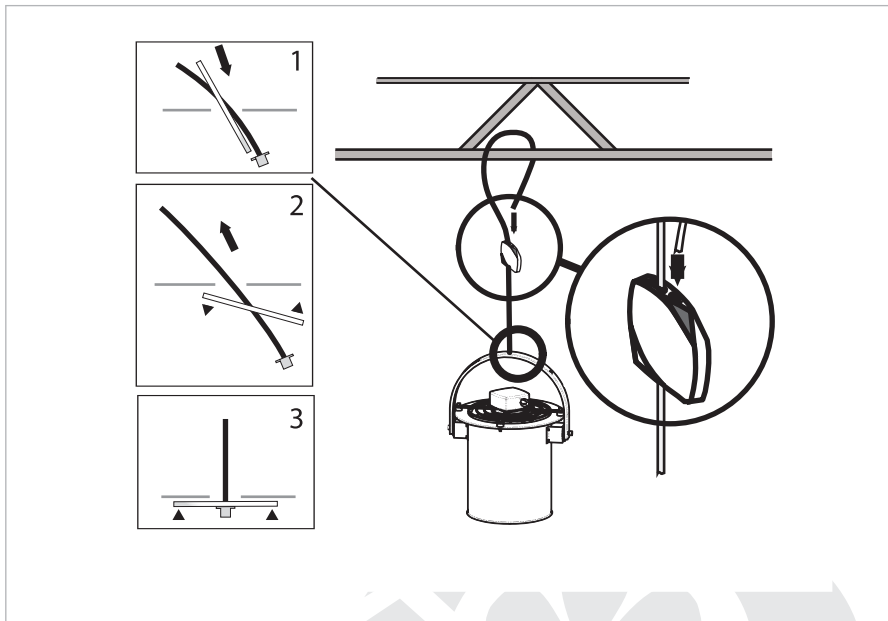
**Mounting**

The Bucket Fan comes with a set of Hanging/Safety Cables with Gripples. The set consists of two Gripples and two cables with a toggle on one end.

**NOTE:** The Hanging and Safety Cables are the exact same, so there is no need to worry about which one is which.

**NOTE:** The toggle ends are the ones that are inserted into the handle.

**WARNING:** Both the Hanging and Safety cables **MUST** be installed as directed.



*Fig. 2. Attaching the Bucket Fan with the Hanging Cable and Gripple.*

Tip: It is easier to attach the Hanging Cable and Gripper to the structure first and then attach the fan with the toggle.

- 1) Insert the cable into one of the openings in the Gripper
- 2) Place the cable over the I-beam, truss, or other structure from which it is being hung.
- 3) Insert the end of the cable into the other opening in the Gripper.
- 4) Adjust to desired height
- 5) Insert toggle into the top hole on the handle.

#### Attaching the Safety Cable

- 1) Insert the cable into one of the openings in the Gripper
- 2) Place the cable over the I-beam, truss, or other attaching structure at a 40° to 50° angle
- 3) Insert the end of the cable into the other opening in the Gripper.
- 4) Insert toggle into the top hole on the handle.
- 5) Take the slack out of the safety cable by pulling the cable through the Gripper.

**NOTE:** The cable should not be so tight as to be pulling the fan to one side. The cable should not be so loose that the cable could get caught or tangled in the motor.

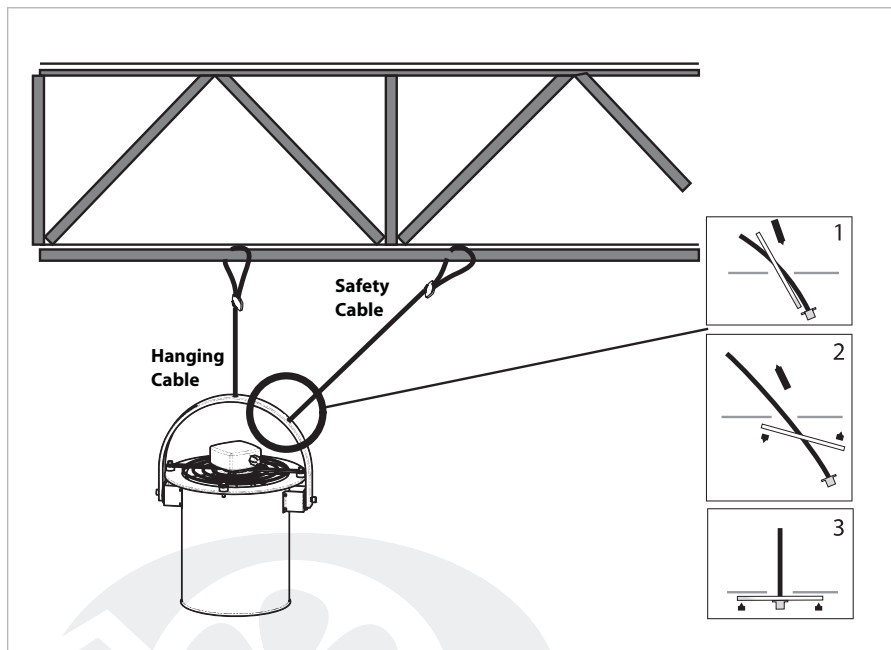


Fig. 3

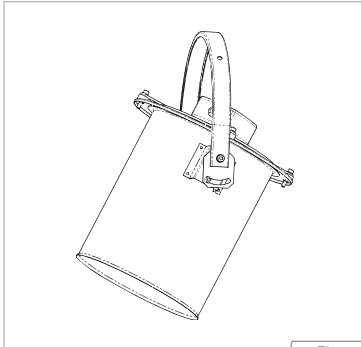


Fig. 4

The Bucket Fan can be angled if needed. All it takes is a 13 mm socket wrench. Loosen the bolts on either side of the fan, place at the angle you want, then re-tighten the bolts.

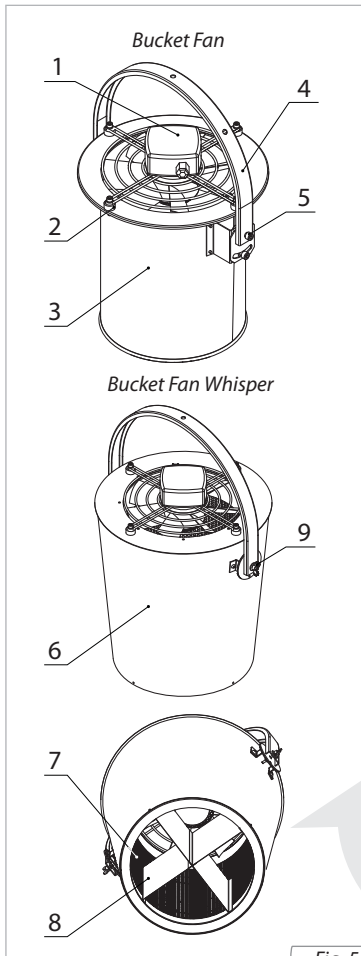


Fig. 5

**BUCKET FAN PARTS**

- 1) Electrical junction box on protective grille.
- 2) Vibration absorbing mount
- 3) Metal case
- 4) Handle
- 5) Handle bolts
- 6) Casing
- 7) Sound-Insulation Layer
- 8) Airflow Straightener
- 9) Wing Head bolt

The destratificator (see Fig. 5) consists of an axial fan attached to the casing via the vibration mounts. The destratificator has a polymer coated steel casing.

The destratificator is equipped with a single-phase asynchronous motor with an external rotor and an axial impeller. The motor is equipped with built-in thermal protection enabling its automatic restarting and utilizes rolling-element bearings. The motor protection class is IP 44.

The Bucket Fan Whisper casing has special perforation and a sound-insulating layer of mineral wool to reduce the noise generated by the axial fan. The Bucket Fan Whisper destratificator has a flow straightener at the discharge which ensures direct air flow and maximum air throw distance.

The destratificator is mounted by means of the bow bracket (Bucket Fan Whisper can be fixed with 15° steps) as well as the mounting and the safety cables with threaded joints.

## MAINTENANCE

BEFORE PERFORMING ANY MAINTENANCE ALWAYS ENSURE THAT THERE IS NO POWER TO THE FAN, YOU MUST DISCONNECT THE ELECTRICITY AT THE MAIN POWER SOURCE!

Annually:

- 1) Check to make sure the bolts are tight.
  - 2) Check impeller for dirt or other matter. Clean if necessary.
- To clean, remove the four screws that secure the grille to the metal case.
  - Remove the grille from the case and clean the blades with warm, soapy water. Avoid splashing water on the motor.
  - Wipe surfaces dry.
  - Also clean the inside of the metal case while you are at it.
  - Re-attach the grille to the case.

## WIRING THE FAN

- Electrical wiring should only be done by a qualified electrician.
- Warranty will not cover equipment damage or failure that is caused by improper installation.
- If the fan did not come pre-wired or if a new wire is to be used, wire the fan as shown in the Figure 6 below.
- Use 18 AWG or greater wire.

|                 |                         |       |
|-----------------|-------------------------|-------|
| Bucket Fan 420  | Bucket Fan Whisper 420  | 1.0 A |
| Bucket Fan 1055 | Bucket Fan Whisper 1055 | 1.0 A |
| Bucket Fan 1460 | Bucket Fan Whisper 1460 | 2.0 A |

All set screws must be checked, and retightened where necessary, before installation.

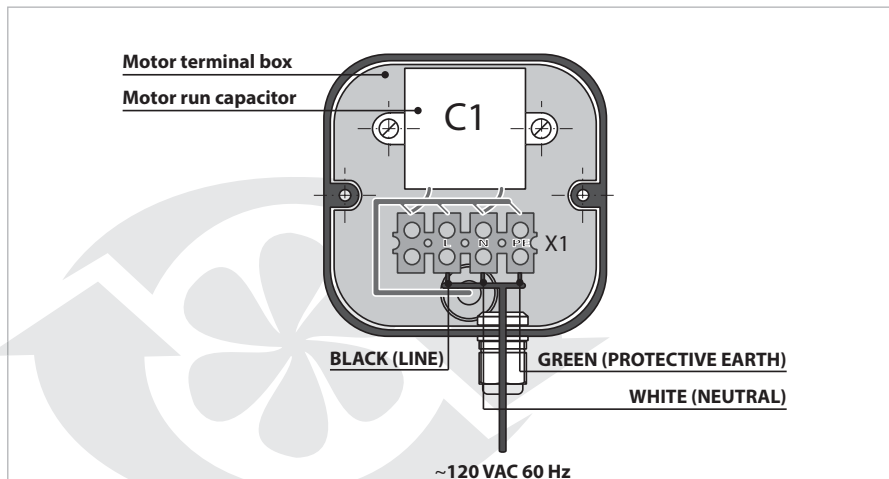


Fig. 6



### CONTROLLER WIRING AND INSTALLATION



- The following is for the installation of one controller for one fan. Contact VENTS US if you need to operate two or more fans with one controller.
- Refer to Figure 7 for electrical connections.
- Use 18 AWG or greater wire.
- It is important that the controller be properly grounded for effective fan operation and personnel safety.
- Always install the controller in sight of the fan it controls.
- **CAUTION:** Incorrectly installed fan(s) and/or controller(s) may damage the equipment and void the warranty.

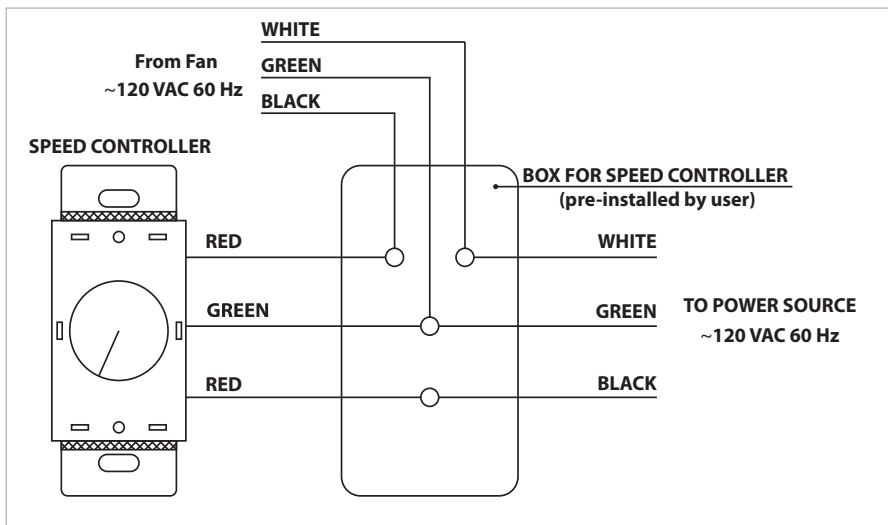


Fig. 7



### 1. Application

- a) Motor Type – Shaded Pole, P.S.C. and Universal.
- b) Required Load – Fans, Blowers and Speed Dependent Loads.

### 2. Wiring

Warning! Power must be turned off before wiring. Connect control in series with motor and line voltage; never connect control across line. Ground (Earth)\*\* – Be sure to ground the control using the green wire.

\*\*Some models do not require grounding, therefore, a ground wire is not provided.

### 3. Mounting

- a) Use 2" deep standard electrical box.
- b) Secure control with outer bracket tabs.

### 4. Minimum Speed Adjustment

Important: If this option is not supplied, disregard Step 4 and continue to Step 5. This control was designed to operate on motors used in diverse applications. A minimum speed adjustment is provided to allow independent control of the minimum speed setting. Minimum speed adjustment ensures motor runs with sufficient torque to prevent stalling.

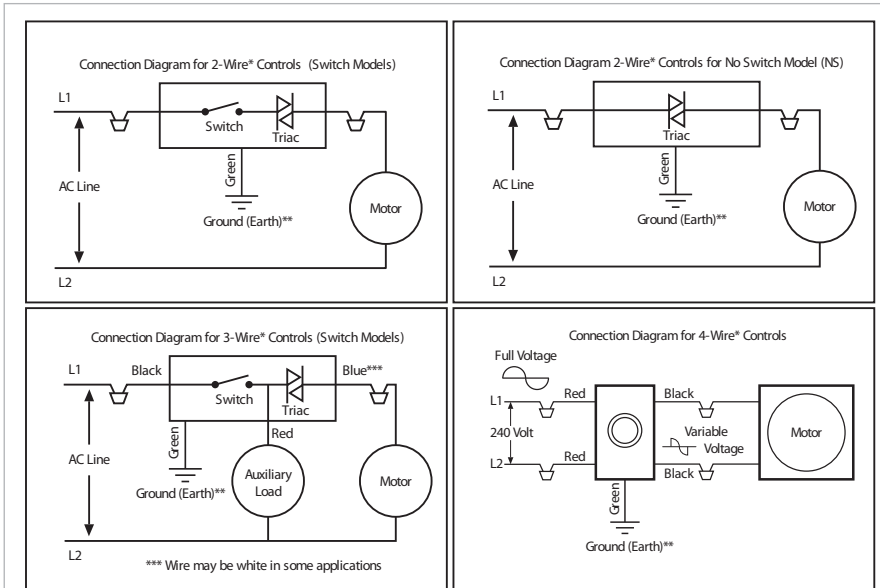
- a) Motor must be in actual operating condition to achieve proper speed adjustment. Motor will not slow down unless proper load is applied.
- b) Turn main control knob to lowest speed position.
- c) Locate and adjust minimum speed setting on front plate with screw driver (rotate clockwise to decrease minimum speed; counter-clockwise to increase minimum speed).

**Special Note:** For 2.5 and 3.0 Amp models, adjustment of minimum speed is reversed. Rotate clockwise to increase minimum speed; counter-clockwise to decrease minimum speed.

On some models minimum speed adjustment hole is located on side of control.

- d) Motor will now operate from this preset minimum speed to full speed.





\* Ground wire is not counted when designating 2,3 or 4 wire controls.  
 \*\* Be sure to ground control using the green wire. Some models do not require grounding, therefore, a ground wire is not provided.  
 \*\*\* Wire may be white in some applications.

Fig. 8

**TROUBLESHOOTING**

| Model  | Possible reason               | Remedy  |
|--|-------------------------------|---|
| The fan does not start                               | No power                      | Have a qualified electrician check connections and power source.        |
| The fan does not start (possibly with humming noise) | Object stuck in blades        | Turn off power. Remove object. Restart fan.                             |
| Loud noise, vibration                                | Loose screw<br>Dirty impeller | Tighten screw<br>Clean the unit according to directions in this manual. |

Please call Customer Service at 888-640-0925 with any other problems encountered.

**STORAGE**

Should you need to store the fan for any length of time:

- Store the fan in its original packaging in a ventilated area. Temperatures should not be below 41 or higher than 104 F. Humidity should not be above 80%.
- The fan must be stored in a non-corrosive environment.
- Avoid storing the fan in an area where it may be hit by a forklift, where it will have to be moved a number of times, etc.

**WARRANTY**

VENTS US warrants to the original purchaser of the Bucket Fan Series series fan that it will be free from defects in materials or workmanship for a period of 60 months from the date of original purchase. If the fan is installed with the speed controller the warranty period is decreased to 24 months. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. During the stated warranty period, VENTS US will, at its option, repair or replace, without charge, any product or part which is found to be defective under normal use and service. This warranty does not cover (a) normal maintenance and normal service or (b) any products or parts which have been subject to misuse, negligence, accident, improper maintenance or repair (other than by VENTS US), faulty installation or installation contrary to recommended installation instructions. Labor to remove and replace products is not covered. The duration of any implied warranty is limited to the time period specified for the express warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. VENTS US OBLIGATION TO REPAIR OR REPLACE, AT VENTS US OPTION, SHALL BE THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY. VENTS SHALL NOT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH PRODUCT USE OR PERFORMANCE. Some states do not allow the exclusion or limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. This warranty supersedes all prior warranties.

