COPPER INSERT INSTALLATION INSTRUCTIONS, USE AND CARE GUIDE

DESIGNER SERIES MODELS

<table>
<thead>
<tr>
<th>Model</th>
<th>Width</th>
<th>CFM</th>
<th>Type of Motor &amp; Blower</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSL430 BF</td>
<td>28-3/8&quot;</td>
<td>*</td>
<td>Remote</td>
</tr>
<tr>
<td>VSL436 BF</td>
<td>34-3/8&quot;</td>
<td>*</td>
<td>Remote</td>
</tr>
<tr>
<td>VSL442 BF</td>
<td>40-3/8&quot;</td>
<td>*</td>
<td>Remote</td>
</tr>
<tr>
<td>VSL448 BF</td>
<td>46-3/8&quot;</td>
<td>*</td>
<td>Remote</td>
</tr>
<tr>
<td>VSL454 BF</td>
<td>52-3/8&quot;</td>
<td>*</td>
<td>Remote</td>
</tr>
<tr>
<td>VSL460 BF</td>
<td>58-3/8&quot;</td>
<td>*</td>
<td>Remote</td>
</tr>
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<td>VSL430-4 BF</td>
<td>28-3/8&quot;</td>
<td>390</td>
<td>Internal</td>
</tr>
<tr>
<td>VSL436-4 BF</td>
<td>34-3/8&quot;</td>
<td>390</td>
<td>Internal</td>
</tr>
<tr>
<td>VSL442-4 BF</td>
<td>40-3/8&quot;</td>
<td>390</td>
<td>Internal</td>
</tr>
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<td>VSL430-6 BF</td>
<td>28-3/8&quot;</td>
<td>660</td>
<td>Internal</td>
</tr>
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<td>VSL436-6 BF</td>
<td>34-3/8&quot;</td>
<td>660</td>
<td>Internal</td>
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<td>VSL454-6 BF</td>
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<td>Internal</td>
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<tr>
<td>VSL460-6 BF</td>
<td>58-3/8&quot;</td>
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<td>Internal</td>
</tr>
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<td>VSL442-12 BF</td>
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<td>VSL454-12 BF</td>
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<td>VSL460-12 BF</td>
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<td>1360</td>
<td>Internal</td>
</tr>
</tbody>
</table>

* These models connect to an In-Line, Roof or Wall-Mounted Remote Blower. The blower used determines the CFM.

Before beginning installation, please thoroughly read and become familiar with these instructions. Installation and service must be completed by a qualified installer. Failure to properly install this product may void the warranty.

**Installer**: Please leave Installation Instructions with the range hood liner.

**Owner**: Please keep Installation Instructions for local electrical inspector’s use and for future reference.

TO REDUCE THE RISK OF FIRE, ELECTRICAL SHOCK, OR INJURY TO PERSONS PLEASE OBSERVE THE FOLLOWING

A) Use this unit only in the manner intended by the manufacturer. If you have any questions, please contact Customer Service.

B) Before servicing or cleaning unit, switch power off at service panel, lock service panel, and lock the service disconnection 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.
CAUTION - For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.

TO REDUCE THE RISK OF A RANGE TOP GREASE FIRE

A) Never leave surface units unattended at high settings. Boilovers cause smoking and greasy spillovers that may ignite. Heat oils slowly on low or medium settings.

B) Always turn hood ON when cooking at high heat or when flambeing food (i.e. Crepes Suzette, Cherries Jubilee, Peppercorn Beef Flambe).

C) Clean ventilating fans frequently. Grease should not be allowed to accumulate on fan or filter.

D) Use proper pan size. Always use cookware appropriate for the size of the surface element.

TO REDUCE THE RISK OF INJURY TO PERSONS IN THE EVENT OF A RANGE TOP GREASE FIRE, PLEASE OBSERVE THE FOLLOWING:

A) Smother flames with a close-fitting lid, cookie sheet, or metal tray, then turn off the burner. Be careful to prevent burns. If the flames do not go out immediately, evacuate and call the fire department.

B) Never pick up a flaming pan; you may be burned.

C) Do not use water, including wet dishclothes or towels. A violent steam explosion will result.

D) Use an extinguisher ONLY if:
   1. You know you have a Class ABC extinguisher and you already know how to operate it.
   2. The fire is small and contained in the area where it started.
   3. The fire department is being called.
   4. You can fight the fire with your back to an exit.

RECOMMENDATIONS

1. Consult a licensed ventilation contractor or qualified technician for proper installation of exhaust ducting. Locate the cooking area for minimum cross drafts -- away from doors and windows, when possible.

2. Ducts must be of adequate size, and duct runs should be as short as possible. Where turns are necessary, keep turning radius as large and as smooth as possible.

3. The ducting must be air tight. Use a minimum of 2 sheet metal screws at every duct joint. Then, seal the duct joints with high quality duct tape.

4. Do not use this unit with any solid-state speed control device.

5. This unit must be grounded.
INSTALLATION INSTRUCTIONS

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, PLEASE OBSERVE THE FOLLOWING

A) 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.

B) Sufficient air is needed for proper combustion and exhausting of gasses through the flue (chimney) of fuel-burning equipment to prevent back drafting. Follow the heating equipment manufacturer’s guidelines 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.

C) When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.

D) Ducted fans must always be vented to the outdoors.

TO REDUCE THE RISK OF FIRE, USE ONLY METAL DUCTWORK

CAUTION - To reduce the risk of fire and to properly exhaust air, be sure to duct air outside. Do not vent exhaust air into spaces within walls, ceilings, cabinets or into attics, crawl spaces, or garages.

CAUTION - To reduce the risk of fire and electric shock, install this (range hood) only with Remote Blower models rated maximum 5 amps.

CONTENTS

Part 1 - Planning the Installation
Part 2 - Securing the Liner
Part 3 - Use and Care
Part 4 - Electrical Connection (give a copy of these 2 pages to your electrician)

PART 1 PLANNING THE INSTALLATION

Our hood liners are designed for installation inside range hoods. Proper installation of the liner is directly related to the material from which the range hood is constructed. A qualified person must complete the installation of this unit. Because of the large size and weight of this hood/liner, two installers are recommended. Plan the installation so that all minimum clearances are met or exceeded. Dimensions shown provide minimum clearances, unless otherwise specified. You must provide structural framing and tight backing in the areas in which you are securing the liner inside your range hood. Failure to do so could distort and damage the liner and void the warranty.

For best and quietest performance with In-Line Blower installations, the blower should be installed in the attic, near or slightly beyond the mid-point of the duct system. In installations requiring the blower be in a chase or wood-type hood over the range (e.g., no attic above the kitchen), the duct silencer will not be as effective in absorbing motor noise. In addition, there will likely be motor sound transmitted through the walls of the chase, bypassing the duct silencer.

It is highly recommended that the blower not be attached directly to the liner or in a chase immediately above the liner unless a duct silencer is installed between the blower and liner and neoprene lined FC Clamps are used.
Our range hood liners are also designed for use with “in-line” and “remote-mount” ventilators. When planning for installations using these products, please refer to the installation instructions provided with the ventilator. When planning for installation using a duct silencer, please refer to the installation instructions provided with the duct silencer.

Given that most installations are different, a back-draft damper is not provided with this unit. Always install ventilation products with an approved wall or roof cap. Duct performance is improved by using round, smooth metal duct work instead of rectangular. If multiple elbows must be used, ensure that there is a minimum of 24” of straight duct between any two elbows. Avoid “S” or back to back configurations caused by adjacent elbows. Do not rely on duct tape alone to seal duct joints. Use sheet metal screws as required to support the duct.

For maximum ventilation performance, the bottom of the hood or liner should be 30”-36” above the cooking surface. This would typically result in the bottom of the hood being approximately 66”-72” above the floor. These dimensions provide for safe and efficient operation of the hood. Always observe local building codes.

**IMPORTANT CUT-OUT INFORMATION**

Cabinet or hood cutouts should be at least 1/8” larger that the following outside dimensions.

<table>
<thead>
<tr>
<th>Models Available (by Width)</th>
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<tbody>
<tr>
<td>Pic</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>A</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>C</td>
</tr>
<tr>
<td>D</td>
</tr>
</tbody>
</table>

**Notes**

1. Center of electrical access is 2-1/4” from front and 3-1/2” from side of liner. Connection access is behind filters.

2. Vent is 8” (30” and 36” widths) or 10” (42” and 48” widths). Damper not included.

3. Length and width cutouts should be 1/8” larger than above.

1. Center of electrical access is 2-1/4” from front and 3-1/2” from side of liner. Connection access is behind filters.

2. Vent is centered left to right. Damper is included.

3. Length and width cutouts should be 1/8” larger than above dimensions.
Notes
1. Center of electrical access is 2-1/4” from front and 3-1/2” from side of liner. Connection access is behind filters.
2. Damper not included.
3. Length and width cutouts should be 1/8” larger than above.

PART 2 SECURING THE LINER

TILE BACKSPLASHES

Liners installed immediately above the top edge of tile backsplashes thicker than 3/4” should be installed slightly forward, not flush with the back wall. The back filter bracket of the liner is 1” deep, and tile installations thicker than this will prevent the filters from being removable.

MOUNTING HOLES

Drilling through stainless steel requires a titanium bit. Be careful not to drill though filter brackets, electrical components, or UL label. Because the liner was designed for various wood hood applications, no mounting holes have been pre-drilled. This allows the liner to be attached in most any area of the range hood that has a wood frame support, e.g., the back, sides or top. We recommend at least 6 equally spaced screws per liner, 3 screws along the back (top or back side panel) and 3 screws on the front top, immediately next to the light bar wall or behind the removable light bar. Where possible, the screw holes should be drilled into the top of the liner (instead of the sides or back). This will help prevent distorting the liner walls in situations where the wood frame is not properly sized to the liner. Models with internal motors should also have at least one screw centered and securely in place on each end (side panel) of the liner because of the added weight.

Neatly measure and mark (left to right and top to bottom) and drill screw holes through the liner as required to match the wood backing. It is easier to drill holes from the outside in, by setting the liner on its face (on cardboard) and drilling from the back side. Secure the liner by driving screws (by others) tightly into the wood frame. Use washers where necessary. When removing the filters, be careful not to scratch the liner by placing the filters, screws, drill bits or drill on the liner’s face.
CONNECTING TO THE VENT PIPE

The liner comes with a metal start collar welded in place. Attach the Start Collar to the duct with at least 3 equally spaced screws. Also apply duct tape, preferably the metal type. Some installations, (where the outside of this portion of the duct is not accessible) will require the metal tape be applied on the inside of the duct. For better access to these installations, the center bracket on the 42" liner model is removable. Be careful not to scratch the liner when removing/reinstalling the bracket.

PART 3 USE AND CARE

Do not operate the blower/ventilator system without the filters in place, or with dirty, grease-laden filters.

OPERATING CONTROLS

Always activate the ventilator when using cooking appliances. For best performance, turn on the blower a few minutes before starting to cook to establish an airflow pattern within the room. Adjust the fan speed by turning the knob. To turn off blower, turn knob to off position. For controlling the lighting, turn the knob. The light comes on high and adjusts to the night light setting. If your model has the electronic touch control, touch the button that corresponds to the desired speed. To turn off blower, touch the illuminated speed button again or the illuminated blower off control button. The electronic light control when touched comes on high; touch again for night light setting, touch again for light off.

ENERGY SAVING TIPS

Eliminate air currents in the liner vicinity by shutting nearby windows and doors, turning off ceiling fans and adjusting the adjacent heating and air conditioning outlets if necessary. Place your largest pans on the rear burners whenever possible. Clean filters and grease laden surfaces often to improve efficiency. Always use lids on cookware to retain heat and moisture. Minimize the amount of liquid used to cook food. Select cookware of proper size, material and construction for the cooking task being performed.

CARE AND CLEANING

Proper cleaning is necessary to maintain performance and appearance, while also ensuring safe operation. The frequency of cleaning should be according to the type and amount of cooking. Best results will be achieved by cleaning soiled components as soon as possible. Filters must be cleaned regularly. Remove one filter at a time by gently inserting a butter knife into the safety slot on the filter front and press away from you and then down. Grasp the front of the filter to remove it. To reinstall the filter, place the back edge of the filter (opposite end from the butter knife slot) into the back filter bracket. Lightly push the filter toward the back of the liner while pressing the front side upwards into place. The small holes on the front edge of the filter line up with the screw heads on the liner. The filter D-rings should be visible after the filter is installed.

The filters may be cleaned by hand washing in hot water using a mild detergent solution or by placing in an automatic dishwasher. Dry the filters before reusing.

Most common scrubber pads will scratch the liner. If a commercially available stainless steel cleaner is used, it is important to read the labels for chlorine compounds. Chlorine is a corrosive substance. If these compounds are present, rinse thoroughly and dry with a soft lint-free cloth. Follow polish manufacturer’s instructions. Always wipe stainless steel surfaces with the grain. Never wipe across the grain. After cleaning, reinstall the filters carefully.
PART 4   ELECTRICAL CONNECTION

Ensure that the power supply is disconnected before proceeding. Verify that the power supply matches the ratings found on the appliance data label before proceeding. The complete appliance must be properly grounded at all times when electrical power is applied. Do not ground the appliance with the neutral (white) house supply wire. A separate ground wire must be utilized. Failure to complete electrical connections properly may result in damaged or non-functional systems. Follow instructions carefully to ensure proper installation.

It is the owner’s responsibility to ensure that a qualified person performs the electrical connection of this appliance. The electrical installation, including minimum supply wire size, must comply with the National Electric Code ANSI/NFPA 70-1990 (or latest revision) and local codes and ordinances.

INSTRUCTIONS

A 15 to 20 amp electrical service is recommended for proper electrical supply. Before determining, calculate amp ratings based on the product label found on the liner and the ventilator. Always observe local building codes. Always use a dedicated circuit. Line load is calculated by adding the amperage of the halogen lights to the rated amperage of the ventilator (either in-line or roof top). If the ventilator is rated in watts rather than amps, divide the watts by 120 and this will give you the amperage rating. The liner is supplied with a 5.0 amp variable speed fan control. Make sure the rated amperage on the ventilator does not exceed 5.0 amps (or 700 watts).

The neutral wire (usually white) for the blower/motor must connect to the same neutral wire that comes from the electrical panel to the liner. It is recommended to run a white neutral wire from the liner’s white neutral wire along the same path as the red wire from the liner’s variable speed control to the blower/motor.

VARIABLE SPEED CONTROL WIRING DETAILS (FOR REMOTE BLOWERS, USUALLY “IN-LINE” BLOWERS)

<table>
<thead>
<tr>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>120 volt AC from electrical panel (usually black) to liner</td>
</tr>
<tr>
<td>White</td>
<td>Neutral from electrical panel (white) to liner</td>
</tr>
<tr>
<td>Green</td>
<td>Ground from electrical panel (usually green) to liner</td>
</tr>
<tr>
<td>Red</td>
<td>120 volt AC variable control from liner to 120 volt AC of variable speed ventilator</td>
</tr>
</tbody>
</table>

CAUTION: Do NOT connect this wire to a 3-speed blower.

3 SPEED SWITCH WIRING DETAILS (FOR REMOTE BLOWERS, USUALLY “ROOF OR WALL” MOUNTED BLOWERS)

When connecting the liner to a 3 speed remote blower, the wiring “rough-in” to the blower must include 5 wires (4 conductor wires and 1 ground wire). This can be accomplished by using either two 2-strand wires (one must have a separate ground) or one 4-strand conductor plus one ground wire. The wire gage should be 14.

<table>
<thead>
<tr>
<th>Wire 1*</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>120 volt AC from electrical panel (usually black) to liner</td>
</tr>
<tr>
<td>White</td>
<td>Neutral from electrical panel (white) to liner</td>
</tr>
<tr>
<td>Green</td>
<td>Ground from electrical panel (usually green) to liner</td>
</tr>
<tr>
<td>Wire 2*</td>
<td>Medium Speed from liner to blower</td>
</tr>
<tr>
<td>Wire 3*</td>
<td>Low Speed from liner to blower</td>
</tr>
<tr>
<td>Wire 4*</td>
<td>Neutral from liner to blower (usually green)</td>
</tr>
<tr>
<td>Wire 5*</td>
<td>Ground from liner to blower</td>
</tr>
</tbody>
</table>

Consult the switch manufacturer’s installation instructions and wiring diagram when substituting control switches.
WIRING DIAGRAMS

DIAGRAM 1: ALL MODELS WITH FACTORY INSTALLED INTERNAL MOTOR/BLOWER

Models:
- VSL430-4 BF
- VSL436-4 BF
- VSL442-4 BF
- VSL430-6 BF
- VSL436-6 BF
- VSL442-6 BF
- VSL448-6 BF
- VSL442-12 BF
- VSL448-12 BF

DIAGRAM 2: MODELS CONNECTED TO VARIABLE SPEED BLOWERS

Models:
- VSL430 BF
- VSL436 BF
- VSL442 BF
- VSL448 BF

DIAGRAM 3: MODELS CONNECTED TO 3 SPEED ROOF OR WALL MOUNTED BLOWERS

Models:
- VSL430 BF
- VSL436 BF
- VSL442 BF
- VSL448 BF