

# Installation Instructions

## In-Line Blower Models: ILHSF8, ILHSF10

Suitable for use in a household cooking area.

Suitable for use with solid state controls.

To complete this blower, the hood assembly must be purchased separately. See the hood installation instructions to determine suitability.

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# Before You Begin...

#### Important:

- **Installer:** In the interest of safety and to minimize problems, read these installation instructions completely and carefully before you begin the installation process. Leave these installation instructions with the customer.
- Customer: Keep these installation instructions for future reference and for the local electrical inspector's use.

# Customer Service Information

## If You Need Help...

If you have questions or problems with installation, contact your Dacor<sup>®</sup> dealer or the Dacor Customer Service Team. For repairs to Dacor appliances under warranty call the Dacor Distinctive Service line. Whenever you call, have the model and serial number of the blower ready. The model and serial number are printed on the appliance data label on the unit.

#### **Dacor Customer Service Team**

Phone: (800) 793-0093 ex. 2813 (U.S.A. and Canada) Monday — Friday 6:00 A.M. to 5:00 P.M. Pacific Time

Web site: www.dacor.com

#### Dacor Distinctive Service (for repairs under warranty only)

Phone: (800) 793-0093 ex. 2822 (U.S.A. and Canada) Monday — Friday 6:00 A.M. to 5:00 P.M. Pacific Time

## Model Identification

ILHSF8 = 8-inch in-line blower

ILHSF10 = 10-inch in-line blower

All specifications subject to change without notice. Dacor assumes no liability for changes to specifications.

# Important Safety Instructions

## Important Information About Safety Instructions

- The *Important Safety Instructions* and warnings in these instructions are not meant to cover all possible problems and conditions that can occur. Use common sense and caution when installing, maintaining or operating this or any other appliance.
- Always contact the Dacor Customer Service Team about problems and conditions that you don't understand. See *Customer Service Information* above.

## Safety Symbols and Labels

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Immediate hazards that **WILL** result in severe personal injury or death.

#### **WARNING**

Hazards or unsafe practices that **COULD** result in severe personal injury or death.

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Hazards or unsafe practices that **COULD** result in minor personal injury or property damage.

### A DANGER

**IMPORTANT**: Do not store or use combustible, flammable or explosive vapors and liquids (such as gasoline) inside or in the vicinity of this or any other appliance. Also keep items that could explode, such as aerosol cans, away from the range or cooktop. Do not store flammable or explosive materials in adjacent cabinets or areas.

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

- a) Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
- b) Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting 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.

## **WARNING**

TO REDUCE THE RISK OF FIRE, USE ONLY METAL DUCTWORK.

#### **WARNING**

WARNING - TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, 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.
- b) Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline 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.

#### **WARNING**

For general ventilating use only. Do not use to exhaust hazardous or explosive materials or vapors.

## **READ AND SAVE THESE INSTRUCTIONS**

# Important Safety Instructions

## General Safety Precautions

To reduce the risk of fire, electric shock, serious injury or death when using this blower, follow basic safety precautions, including the following:

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- Do not install or operate this unit if it has been damaged, dropped, has damaged electrical wiring or is not working properly. If the product is damaged when received, immediately contact the dealer or builder.
- Use this blower only for its intended purpose as outlined in these instructions. This blower is not intended for commercial use.
- All planning, installation work and electrical wiring must be performed in accordance with all governing codes and ordinances, including fire-rated construction. Contact your local building department for further information.
- Install or locate this appliance only in accordance with these installation instructions and the Dacor hood or downdraft vent installation instructions.
  Improper installation, adjustment, alteration, service or maintenance can cause serious personal injury or property damage.
- Before installing or servicing the in-line blower, make sure that power to the wiring is turned off at the circuit breaker or fuse box. Make sure that the service panel is locked or tagged to prevent power from being switched on accidently.
- To reduce the risk of electric shock or fire, the total combined current draw of the in-line blower and the hood or downdraft vent must not exceed the maximum rated input current of the hood or downdraft vent.

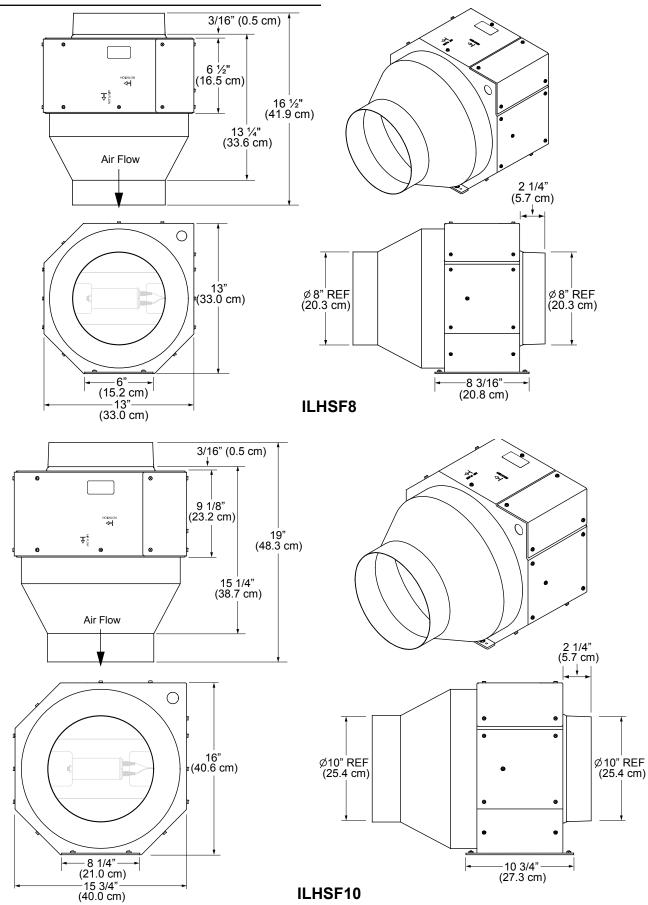
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- The installer must show the customer the location of the fuse or circuit breaker panel so that the customer knows where and how to turn the power off.
- Never allow the filters or vent openings on the hood or downdraft vent to become blocked or clogged. Do not allow foreign objects, such as cigarettes or napkins, to be sucked into the vent holes.
- Clean the filters and all grease-laden surfaces around the hood or downdraft vent often to prevent grease fires and maintain performance.
- Use only duct work constructed of materials deemed acceptable by state, municipal and local codes.
- Tape all duct joints securely to prevent combustion by-products, smoke or odors from entering the home. Doing so will also improve system efficiency.
- Do not route electrical wiring near hot surfaces.
- Do not ground the appliance with the neutral (white) house supply wire. A separate ground wire must be utilized.
- To prevent a damaged or non-functional system, complete electrical connections properly. Follow the wiring diagrams carefully in the hood or in-line blower installation instructions to ensure a proper installation. After installation or service, make sure that all blower wires are tightly connected to their respective terminals.

# **Product Specifications**

## **Product Dimensions**

All tolerances:  $\pm 1/16$ ", ( $\pm 1.6$  mm) unless otherwise stated



# **Product Specifications**

## **Electrical Specifications**

## **Electrical Supply Requirements**

- The power for this blower is supplied via 1/2" 3-wire conduit (not included) by an approved Dacor hood or raised vent. The conduit is installed between the hood or raised vent and the blower and shall be terminated on each end by a 1/2" UL certified strain relief. The power is turned on and off by the power switch on the approved ventilation device.
- The correct voltage, frequency and amperage must be supplied to the hood or raised vent and the blower from a grounded, single phase circuit that is protected by a properly sized circuit breaker or time-delay fuse. The circuit must have the capacity to supply the combined power requirements for the hood or raised vent and the in-line blower. See the installation instructions for the hood or raised vent to determine total power requirements in combination with the blower electrical specifications.

Model Number*	Power Requirements**	Nominal Blower Rating***
ILHSF8	120 Vac, 60 Hz, 3.5 Amp.	600 CFM
ILHSF10	120 Vac, 60 Hz, 4.5 Amp.	1100 CFM

#### **Blower Electrical Specifications**

- \* All models are thermally protected.
- \*\* In addition to the hood or raised vent
- \*\*\* At 0 inches static pressure. See Technical Data for actual rating and other performance data.

The above specifications are for reference only, See the data label on the blower for exact specifications. If the above specifications vary from the label on the blower, use the data on the blower label.

- It is the owner's responsibility to ensure that the electrical connection of this blower is performed by a qualified electrician. The electrical installation, including minimum supply wire size and grounding, must be in accordance with the National Electric code ANSI/NFPA\* (or latest revision) and local codes and ordinances.
- \* A copy of the specification may be obtained from:

National Fire Protection Association 1 Batterymarch Park

Quincy, Massachusetts 02269-9101

 If the electrical service provided does not meet all product specifications, or does not conform to the NEC or local standards, do not proceed with the installation. Call a licensed electrician to correct the electrical service before proceeding.

# Installation Planning

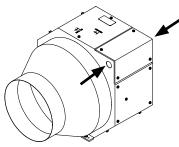
## A WARNING

#### To avoid the risk of fire due to the unit overheating:

- **DO NOT** install this blower with a hood or raised vent that has an internal blower.
- **DO NOT** install more than one blower to increase the length of the duct run. Even small differences between blower air flow rates can greatly reduce the air drawn by the hood or raised vent.
- For optimal performance, consult a qualified HVAC specialist before installation.
- Consult the installation instructions for the raised vent or hood for complete layout and duct system planning instructions. Observe all location and duct system design instructions.
- To minimize noise, install the blower at the mid-point between the raised vent or hood and the duct system exhaust. Minimum recommended distance from the vent/hood or exhaust is 5 feet.

#### **General System Design Notes**

Wire the remote blower to turn on when the raised vent or hood is turned on by running a piece of conduit parallel to the duct work and connecting it to the raised vent or hood on one end and the in-line blower on the other. There are two 1/2" electrical access hole knock



outs in the sides of the blower's electrical access panel. Electrical Access Knock-outs

Select a location that can properly support or can be reinforced to support the weight of the blower.

Model Number	Weight
ILHSF8	22 lbs. (10 kg.)
ILHSF10	31 lbs. (14 kg.)

- Install the blower so that it can be removed if service is required.
- Plan the installation so that all minimum dimensions are met or exceeded. All contact surfaces between the blower and any mounting surfaces must be solid and at right angles.
- The mounting surface must be thick enough to accommodate screws 2" in length.

# Installation Instructions

## Installation Preparation

## Verify Package Contents

Blower assembly

## Parts Required

- Four (4) #10 x 2", round head screws (suitable for the material the blower will be mounted to).
- 1/2" 3 wire conduit with a 1/2" UL certified strain relief on each end (length is determined by in-line blower location). See the *Electrical Supply Requirements* section for complete specifications.
- Also consult the hood or raised vent installation instructions for additional parts required.

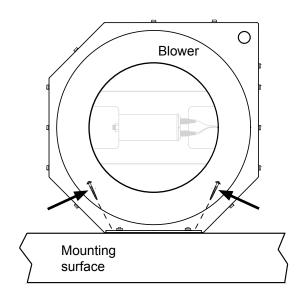
## Installation

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- If the electrical service provided does not meet the power requirements for the hood/raised vent and the blower combined, do not continue with the installation. Contact a licensed electrician to correct the situation before continuing.
- Failure to connect the wiring as specified may result in an electric shock hazard and/or improper blower operation.
- To avoid the risk of fire or electric shock, turn off power at the circuit breaker panel or fuse box before connecting the blower to the power source.

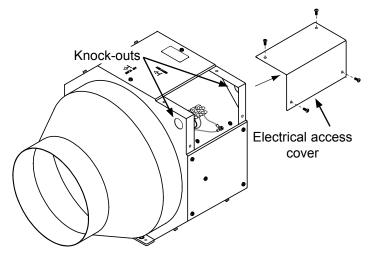
### Blower Mounting

- 1. Hold the blower steady in the mounting location. Make sure that the "AIR FLOW" arrow on the chassis points toward the exhaust duct's path to the outdoors.
- 2. Attach it using four (4) #10 x 2", round head screws. Insert the screws at an angle as shown.

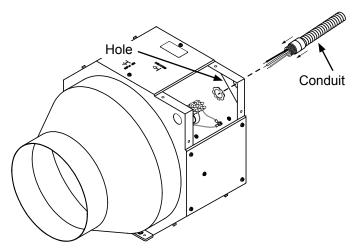


### **Electrical Installation**

- 1. Run the conduit line used to supply power from the installed raised vent or hood to the in-line blower parallel to the duct work.
- 2. Make sure that power to the raised vent or hood is disconnected or turned off at the circuit breaker or fuse box.
- 3. Remove the electrical access cover from the in-line blower to expose the power terminals.



- 4. Remove one of the conduit knock-outs from one side of the blower.
- 5. With the UL certified strain relief attached to the end of the conduit, feed the end of the conduit into the hole and attach it to the side of the blower.



# Installation Instructions

### Electrical Installation (continued)

- 6. Strip the three conduit wires.
- Connect the white (neutral) wire from the conduit to the N1 blower power terminal (see Figure 1). Tighten the terminal screw firmly into place. IMPORTANT: The neutral terminal on the blower has the BLACK wire from the blower motor connected to it.
- Connect the black (L1) wire from the conduit to the L1 blower power terminal (see Figure 1). Tighten the terminal screw firmly into place. **IMPORTANT**: The L1 (hot) terminal on the blower has the BLUE wire from the blower motor connected to it.
- Connect the green (GND) wire from the conduit to the GND blower power terminal (see Figure 1). Tighten the terminal screw firmly into place.
- Check the wires from the blower motor to make sure that they are firmly attached to the terminal according to Figure 2 below. Reconnect any wires that are loose. Make sure all terminal screws are tight. Also make sure the nut on the ground lug is tight.
- 11. Replace the blower electrical access panel.
- 12. Secure the other end of the conduit to the hood or raised vent and connect the wires according to the hood or raised vent installation instructions.

13. Install the duct work according to the installation instructions for the hood or raised vent. Support the duct weight as necessary to ensure properly sealed joints.

## Verifying Proper Operation

## A WARNING

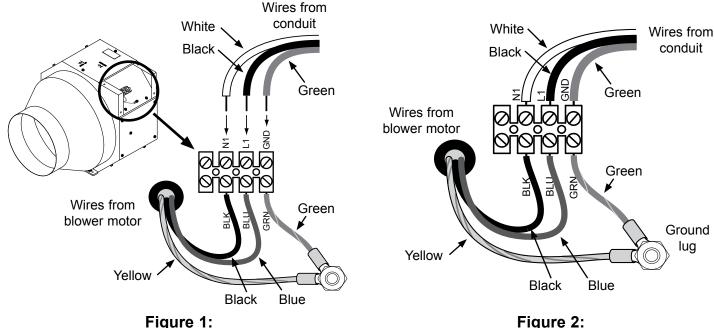
Read the raised vent or hood use and care manual completely before operation.

Test the blower operation according to the *Verify Proper Operation* section of the hood or raised vent installation instructions.

- 1. If the blower does not work, check all input and output power connections at the hood or raised vent.
- 2. Check the blower power terminal connections.

If the installation still does not work, contact Dacor Distinctive Service at (800) 793-0093 ex. 2822. Do not attempt to repair the blower, hood or raised vent yourself. Be sure to have all model and serial numbers from the product data labels available when you call.

Dacor is not responsible for the cost of correcting problems caused by a faulty installation.



Conduit Wire Connection

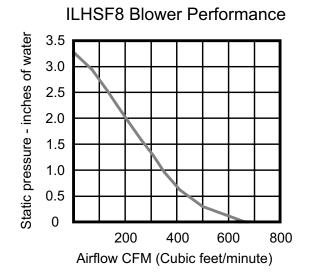
Figure 2: Final Blower Wiring Diagram

# Technical Data

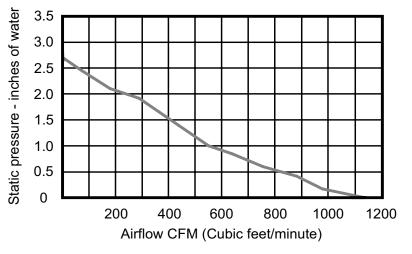
## **Blower Ratings**

Model Number	Nominal Rating*	Actual Rating*
ILHSF8	600 CFM	650.7 CFM
ILHSF10	1100 CFM	1115.9 CFM

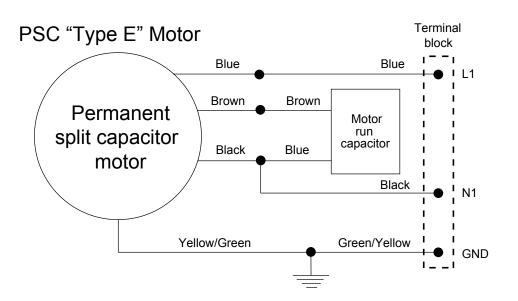
\* At zero inches static pressure



#### ILHSF10 Blower Performance



## Wiring Diagram



# Notes

