

# MODELS 331H & 332H EXTERIOR MOUNTED BLOWER

FOR USE WITH RANGEMASTER HOODS AND ECLIPSE DOWNDRAFT VENTILATORS

### READ AND SAVE THESE INSTRUCTIONS



### **WARNING**

### TO REDUCETHE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

- Use this unit only in the manner intended by the manufacturer.
   If you have questions, contact the manufacturer at the address or telephone number listed in the warranty.
- 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.
- Installation work and electrical wiring must be done by a qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction codes and standards.
- 4. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent backdrafting. 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.
- When cutting or drilling into wall, or ceiling, do not damage electrical wiring or other hidden utilities.
- 6. Ducted fans must always be vented to the outdoors.
- To reduce risk of fire, use only metal ductwork.
- 8. This unit must be grounded.

### **CAUTION**

- For general ventilating use only. Do not use to exhaust hazardous or explosive material and vapors.
- To avoid motor bearing damage and noisy and/or unbalanced impellers, keep drywall spray, construction dust, etc. off power unit.
- 3. Please read specification label on product for further information and requirements.
- Electrical circuit, including speed control, (if used), must be rated 6 AMPS minimum for Model 332H or 3 AMPS minimum for Model 331H.

### **SPECIFICATIONS**

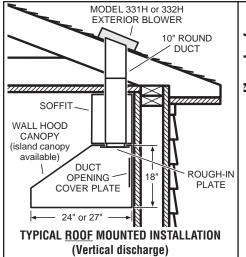
MODEL	VOLTS	AMPS	CFM	DUCT SIZE
331H	120	2.4	600	10 " DIA.
332H	120	5.7	900	10" DIA.

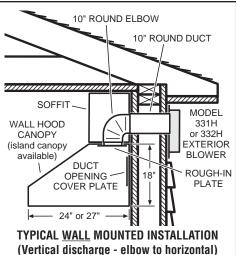
### PLAN THE INSTALLATION

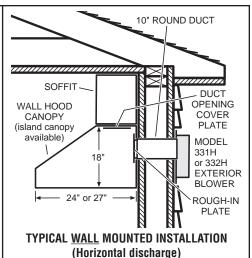
#### **ALL INSTALLATIONS**

- Locate the blower so the length of the duct run and number of elbows and transitions needed are kept to a minimum.
   Please note - when using blower with the Broan Eclipse Downdraft: The downdraft has a 3¼" x 10" discharge. Transitions are available to connect it to the 10" round inlet on this exterior-mounted blower.
- Where possible, blower should be centered between wall studs or roof rafters.
- Avoid pipes, wires, or other ductwork that may be running through the wall.
- 4. Be sure that there is enough space for any transitions that may be needed between the blower and the connecting ductwork.
- For best performance, locate transitions nearest to ventilator (i.e. downdraft).

NOTE: Horizontal discharge requires relocation of the duct opening cover plate. See hood manual for instructions.





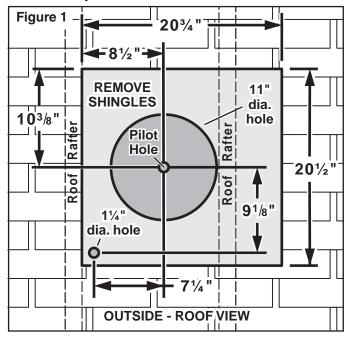


**INSTALLER: Leave This Manual With The Homeowner HOMEOWNER: Use And Care Information On Page 3** 

## PREPARE THE INSTALLATION LOCATION

### **ROOF INSTALLATIONS**

 Locate the blower on the rear slope of the roof. Place it in a location to minimize duct run. The location should be free of obstacles (T.V. leads, electrical lines, etc.). Bear in mind, if the blower top is level with the roof peak, it will not be seen from the street. Keep this approximate location in mind as you work from within the attic.

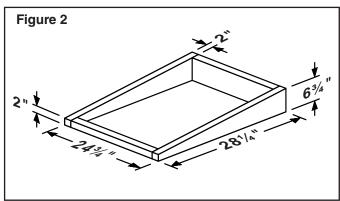


From inside the attic space:

2. Drill a **PILOT HOLE** up through the roof, 8½" from the *inside* edge of a **ROOF RAFTER**.

From outside - on the roof:

- 3. Measure and mark the 20¾" x 20½" rectangle. Cut and remove only the shingles inside this rectangle.
- Measure and mark the 11" DIAMETER HOLE and the 1¼" DIAMETER HOLE. Cut these holes all the way through the roof.

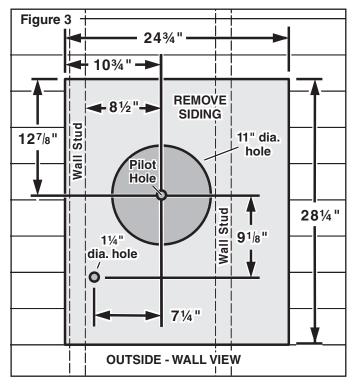


 For flat roof installations, build a curb that will mount the blower at a minimum pitch of 2/12. See Figure 2. Discharge end of the blower should be pointed away from prevailing winds.

## PREPARE THE INSTALLATION LOCATION

### **WALL INSTALLATIONS**

 Choose a position on the outside wall. Make sure that no wall studs, pipes or wires run through the opening area.



From inside the wall:

2. Drill a **PILOT HOLE** through the wall, 8½" from the *inside* edge of a **WALL STUD**.

From outside - on the wall:

- 3. Measure and mark the 24¾" x 28¼" rectangle. <u>Cut</u> and remove only the siding inside this rectangle.
- 4. Measure and mark the 11" DIAMETER HOLE and the 11/4" DIAMETER HOLE. Cut these holes all the way through the wall.

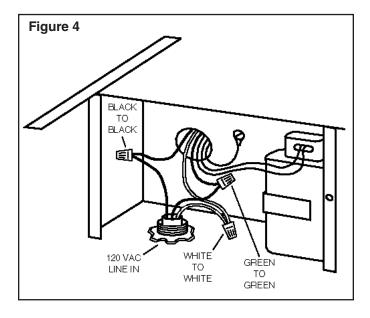
### PREPARE THE BLOWER

### **ALL INSTALLATIONS**

- 1. Unpack the blower assembly.
- 2. Remove the cover and screws.
- 3. Remove and discard cardboard from blower wheel.
- 4. Remove the wiring box cover and screws.
- 5. Attach an appropriate CSA approved cable connector in the hole at the rear of the wiring box.

### **ROOF INSTALLATIONS**

- 1. Remove roofing nails from the upper 2/3 of the shingles around the cutout area and carefully lift the shingles to allow the back flashing sheet on the blower housing to fit under them.
- 2. Center the blower ring in the 11" diameter hole, making sure that the 1-1/4" diameter electrical wiring hole aligns with the hole in the wiring box.
- 3. Attach the blower to the roof with the six screws provided. All six holes in the back panel must be filled, or any moisture that may get inside the housing could leak into the house.
- 4. Using a good grade of roofing cement, seal all of the shingles around the housing and flashing sheet as well as the mounting screw heads.
- 5. Bring electrical wiring through the hole in the wiring box and secure it according to local codes.



- Make the electrical connections with the proper connector for the type of wiring being used. Connect white to white, black to black, and the green or bare wire to green. See Figure 4.
- 7. Replace wiring box cover and screws. Do not pinch wiring under the cover.
- 8. Check for free movement of the damper before installing housing cover and screws.
- 9. Turn on power and check operation of the blower.

### INSTALL THE BLOWER

### **WALL INSTALLATIONS**

- 1. Place a large bead of caulk on the back side of the housing along the outer edge.
- 2. Center the blower ring in the 11" diameter hole, making sure that the 1-1/4" diameter electrical wiring hole aligns with the hole in the wiring box.
- Attach blower to the wall with the six screws provided. All six holes in the back panel must be filled, or any moisture that may get inside the housing could leak into the house.
- Using a good grade of caulk, seal all around the mounting screw heads.
- 5. Bring electrical wiring through the hole in the wiring box and secure it according to local codes.
- Make the electrical connections with the proper connector for the type of wire being used. Connect white to white, black to black, and green or bare wire to green. See Figure 4.
- Replace wiring box cover and screws. Do not pinch wiring under cover.
- 8. Check for free movement of the damper before installing housing cover and screws.
- 9. Turn on power and check operation of the blower.
- 10.Top and side flanges of the back plate may be covered with trim strips. Do not block grille opening at bottom with trim. It will adversely affect performance of the blower.

### **USE AND CARE**

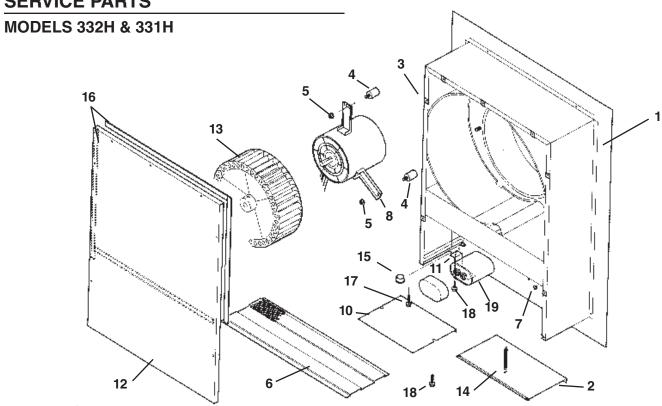
Disconnect electrical power supply and lock out service panel before cleaning or servicing this unit.

### **CLEANING**

Remove cover and carefully vacuum blower and inside of housing. Be careful not to bend or otherwise damage blower wheel.

### MOTOR LUBRICATION

The motor is permanently lubricated. Do not oil or disassemble motor.



KEY NO.	PART NO.	DESCRIPTION
1	97011795	Airbox Assembly
2	98008507	Damper
3	93260454	Sheet Metal Nut, #18-18 U-Type (7 req.)*
4	99100484	Isolator (3 req.)
5	99260477	Whiz Nut, 1/4" - 20 (3 req.)*
6	98008511	Grille
7	99100379	Heyco Damper (2 req.)
8	99080396	Motor W/Capacitor (Model 332)
	99080397	Motor W/Capacitor (Model 331)
10	98008509	Wiring Box Cover
11	98008588	Capacitor Clamp
12	98008510	Airbox Cover
13	99020263	Blower Wheel (Model 332)
	99020264	Blower Wheel (Model 331)
14	99140145	Damper Spring
15	99400055	Heyco
16	99100517	Foam Seal (4 req.)
17	99150471	Hex Screw, #10 - 32 x 1/2"*
18	99150535	Hex Screw, #8-16 x 3/8 (2 Req.)*
19	99271110	Capacitor 15 MFD

<sup>\*</sup> Standard Hardware - May be purchased locally. Always order replacement parts by Part No., not Key No.