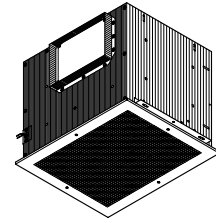


## CEILING / WALL MOUNT VENTILATORS • 120V



### READ AND SAVE THESE INSTRUCTIONS

#### WARNING

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

1. 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.
2. 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.
3. 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.
5. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
6. Ducted fans must always be vented to the outdoors.
7. To reduce the risk of fire, use only metal ductwork.
8. If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application and be connected to a GFCI (Ground Fault Interrupter) - protected branch circuit.
9. Never place a switch where it can be reached from a tub or shower.
10. This unit must be grounded.

#### CAUTION

1. For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.
2. 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.

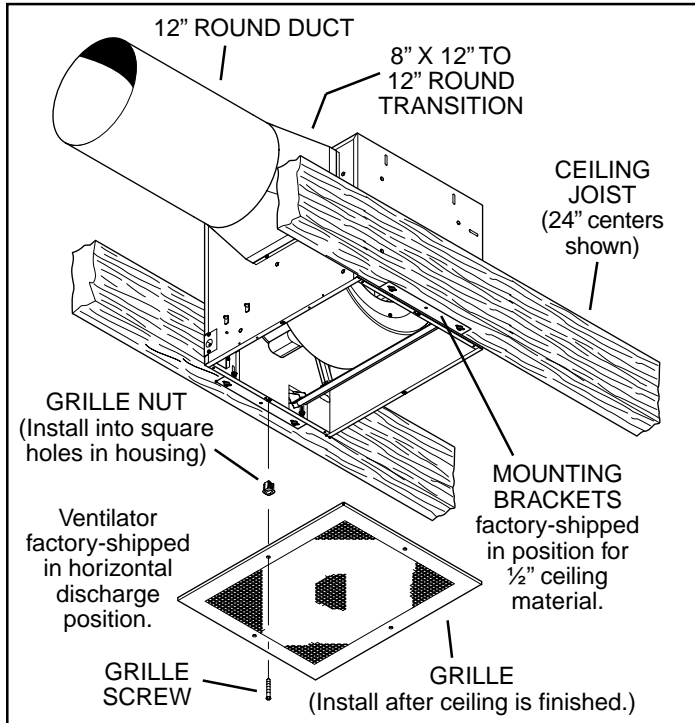
#### TABLE OF CONTENTS

This manual is divided into sections as follows:

- **“TYPICAL INSTALLATION”**  
This section shows a common installation in new and existing, frame construction.
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  - Mounting (existing construction)
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  - Ducting (horizontal blower discharge)
- **“MOUNTING OPTIONS”**
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  - Wiring Plate Position
- **“DUCTING OPTIONS”**
  - Blower Discharge Positions
  - Ducting (vertical blower discharge)
- **“USE AND CARE”**
- **“SERVICE PARTS”**
- **“WARRANTY”**

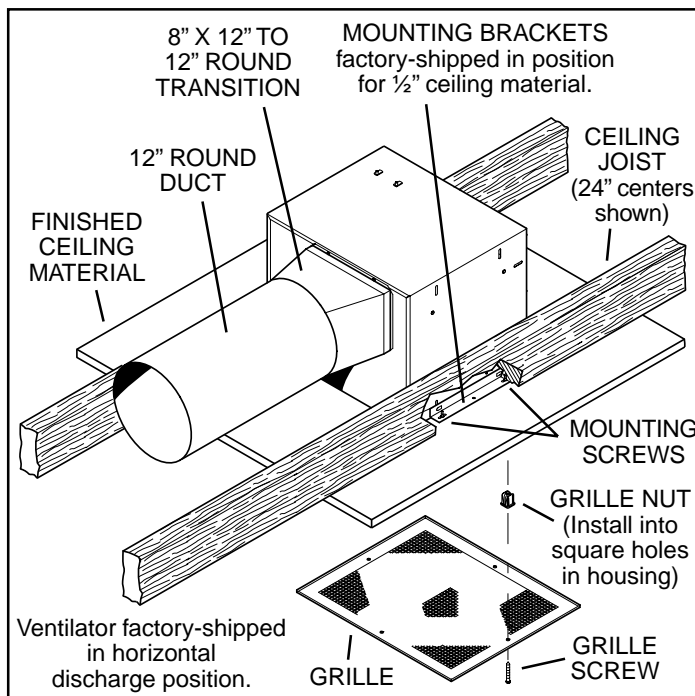
## TYPICAL INSTALLATION

### MOUNTING (*New Frame Construction*)



Factory-shipped unit installed in new construction.

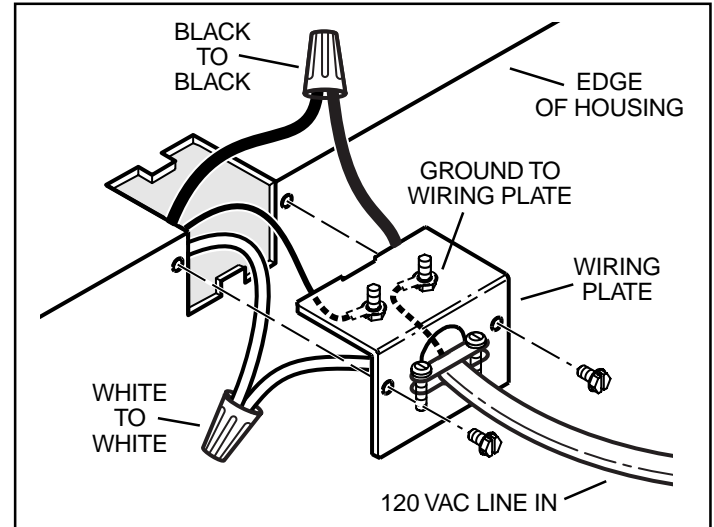
### MOUNTING (*Existing Frame Construction*)



Factory-shipped unit installed in existing construction.

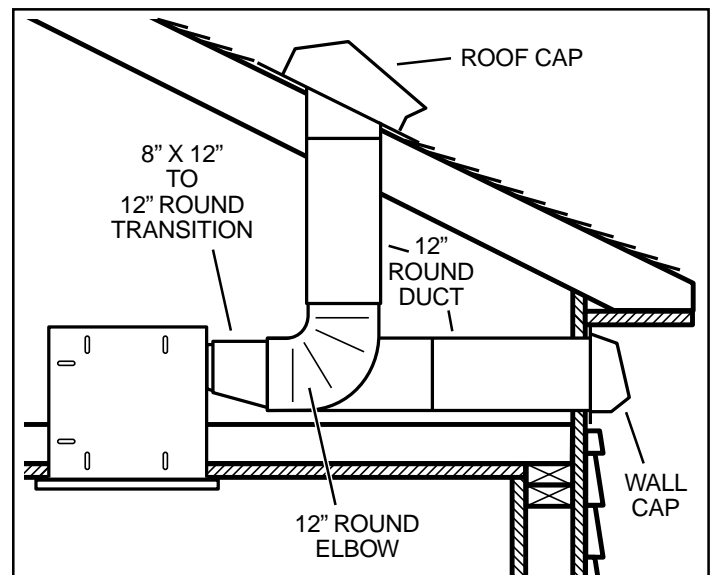
## TYPICAL INSTALLATION

### WIRING



Ventilator can be wired from outside of housing. Use UL approved connectors to wire per local codes.

### DUCTING (*Horizontal blower discharge*)



Two ways to connect ductwork to a factory-shipped unit.

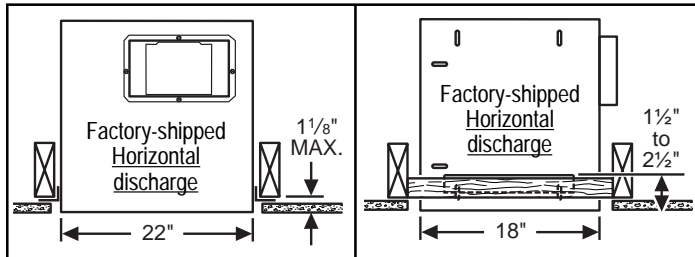
### IMPORTANT:

#### **Remove shipping tape from damper**

Remove the shipping tape from the damper flap and make sure that damper flap opens and closes freely inside the ductwork. Use duct tape to make ductwork connections secure and air-tight.

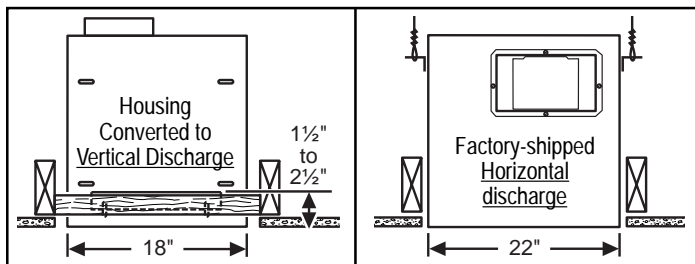
## MOUNTING OPTIONS

¼-20 hex nuts secure mounting brackets to housing. Loosen and re-tighten or remove and replace nuts as necessary for desired mounting bracket position.



Mounting brackets in factory-shipped position - mounted directly to joists. (Outlet parallel to joists.) (New construction)

Mounting brackets flipped over and mounted to additional framing. (Outlet perpendicular to joists.) (New or Existing construction)

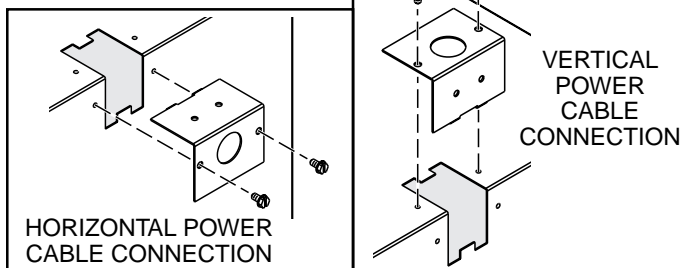


Mounting brackets flipped over and mounted to additional framing. (Outlet vertical.) (New or Existing construction)

Mounting brackets flipped over and mounted to top of housing. Housing secured with cables. (Outlet parallel to joists.) (New or Existing construction)

## WIRING OPTIONS

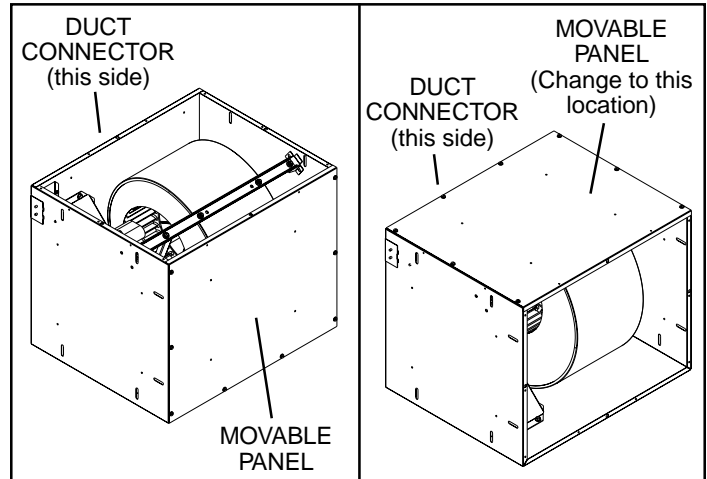
### WIRING PLATE POSITION



Wiring plate mounts to side or top of housing.

## DUCTING OPTIONS

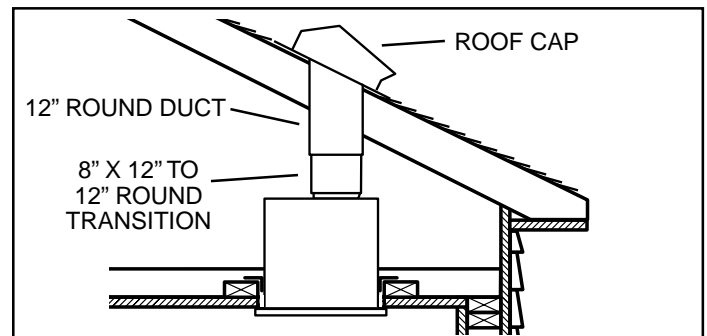
### BLOWER DISCHARGE POSITIONS



Ventilator shown in horizontal discharge position. (Factory shipped)

Ventilator shown in vertical discharge position. (Change movable panel to new location as shown.)

### DUCTING (Vertical blower discharge)



Typical ductwork connection to a ventilator converted to vertical discharge.

## USE AND CARE

Ventilator is designed for continuous operation. If desired, it may be controlled using an on/off switch or a solid-state, variable speed control. Follow wiring instructions packed with control, and adhere to all local and state codes, and the National Electrical Code.



**WARNING: To reduce the risk of electric shock, disconnect from power supply before servicing.**

**To clean grille:** Use appropriate vacuum attachment or remove grille and clean with a soft cloth and mild soap or detergent. Dry grille thoroughly before reinstalling.

**To clean blower assembly:** Remove grille, unplug blower from housing, remove blower mounting nuts, and carefully remove blower from housing. Use appropriate vacuum attachment or a soft cloth and mild soap or detergent to clean blower discharge area and wheel. **DO NOT ALLOW WATER TO ENTER MOTOR.** Make sure blower assembly is completely dry before reinstalling.

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

## SERVICE PARTS

KEY NO.	PART NO.	DESCRIPTION
1	97014853	Damper Flap
2	99150415	Screw, #8B x ¼" (10 req.)
3	98009520	Duct Connector
4	97014784	Housing Assembly
5	97014728	Mounting Bracket (2 req.)
6	99150591	Mounting Screw (4 req.)
7	97006142	Wiring Harness
8	99150471	Ground Screw, #10-32 x ½" (2 req.)
9	98005512	Wiring Adapter Plate
10	99420466	Insulation Mounting Clip (16 req.)
11	99420470	Grille Nut (4 req.)
12	98009518	Movable Housing Panel
13	93150487	Screw, #10-24 x .375" (8 req.)
14	98005513	Outlet Box Cover
15	99400035	Strain Relief Bushing
16	99500394	Insulation, Front
17	99500393	Insulation, Base
18	99500395	Insulation, Back
19	97014788	Motor Bracket
20	99260477	Whiz Nut, ¼"-20" (11 req.)
21	99200202	Screw, ¼"-20 x ½" (5 req.)
22	97014785	Blower Scroll
23	99080490	Motor (VCDD090C)
	99080491	Motor (VCDD150C)
24	93260447	Nut, Hex Flange 5/16"-18" (5 req.)
25	98009516	Support Bracket
26	99680019	Wheel Clamp
27	99020274	Blower Wheel (includes Key No. 26)
28	98009514	Inlet Ring
29	99150417	Screw, #8-18 x ¼" (5 req.)
30	98009513	Scroll Support Channel
+	97014848	Blower Assembly Complete (VCDD090C) (Includes Key Nos. 19 thru 30)
+	97014849	Blower Assembly Complete (VCDD150C) (Includes Key Nos. 19 thru 30)
31	98009522	Grille
32	99150472	Grille Screw (4 req.)

Order replacement parts by PART NO. - not by KEY NO.  
\* Standard hardware - may be purchased locally.  
+ Not shown assembled.

## SERVICE PARTS

