

# KitchenAid®

KIVD800T0B  
KIVD860T0B  
KPED890T  
KPID850T

30" Plenum  
36" Plenum  
External Power  
Internal Power

# Installation Instructions Use & Care Information

## 30" and 36" Downdraft Vent Systems

### IMPORTANT:

Read and save these instructions.

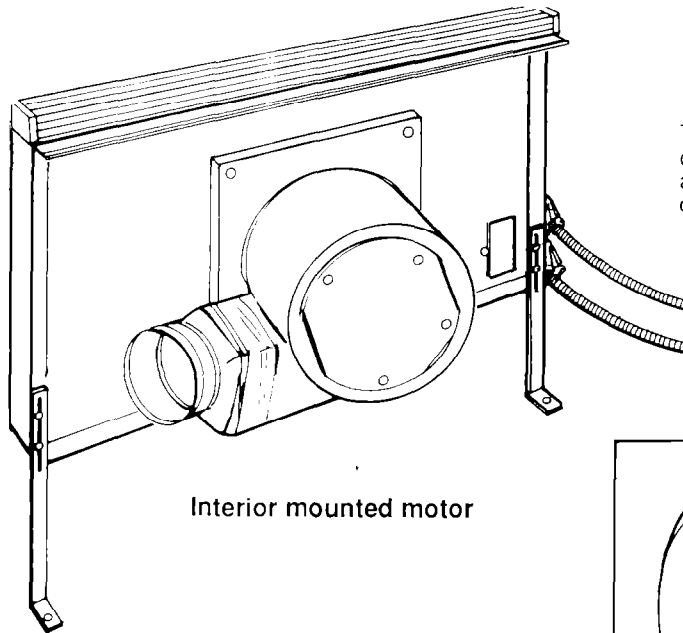
**Installer:** Leave Installation Instructions with the Homeowner.

**Homeowner:** Keep Installation Instructions for future reference.

Save Installation Instructions for local electrical inspector's use.

### SPECIAL NOTE:

Dimensions and other information given are for installations with any KitchenAid cooktop. If installing the downdraft vent system with a different brand of cooktop, consult that manufacturer's cutout dimensions and installation methods and the information in this guide.

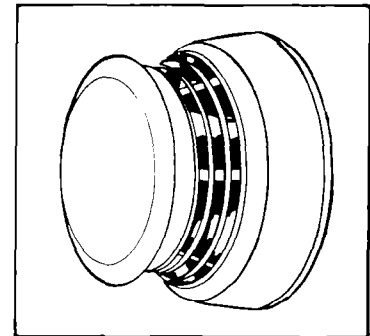


Interior mounted motor

The downdraft vent system can be installed with either an interior mounted motor or an exterior mounted blower.

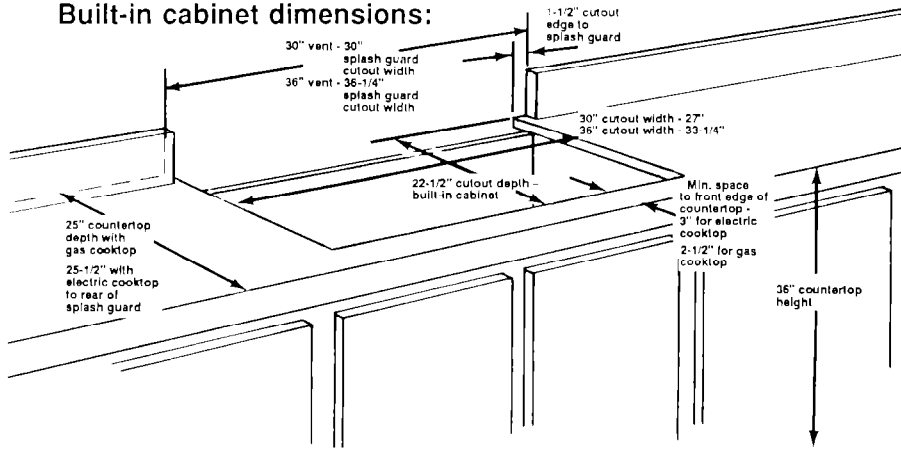
### Exterior mounted motor

Exterior roof-mounted system requires Roof Mount Kit, Part No. 4173296, which includes dome cover and flashing. See your KitchenAid dealer.



# Dimensions for 30" and 36" downdraft vent systems when installed with a KitchenAid cooktop:

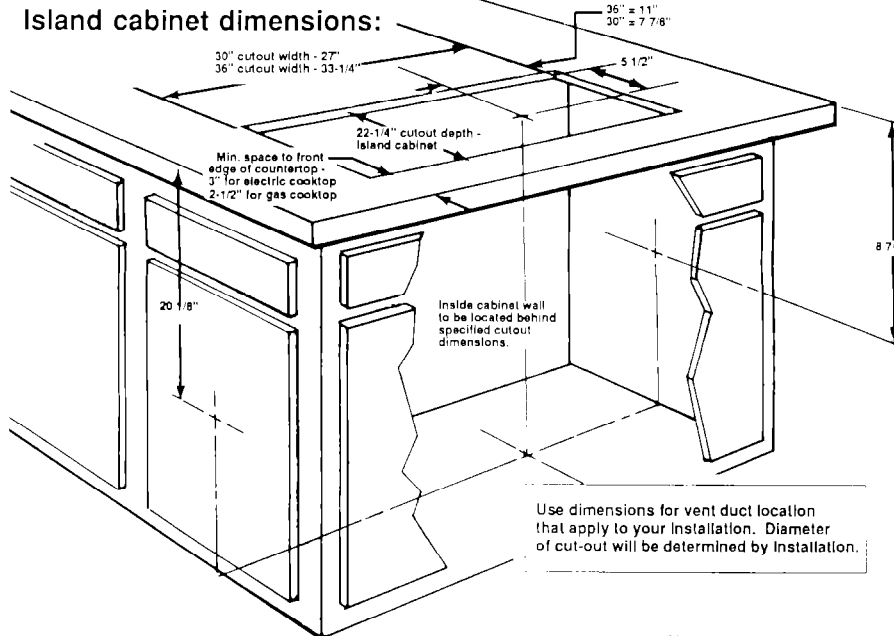
## Built-in cabinet dimensions:



**Important:** Observe all governing codes and ordinances. Failure to meet codes and ordinances could lead to fire or electrical shock hazard.

ALL OPENINGS IN THE WALL OR FLOOR WHERE THE DOWNDRAFT VENT IS TO BE INSTALLED MUST BE SEALED.

## Island cabinet dimensions:



Use dimensions for vent duct location that apply to your installation. Diameter of cut-out will be determined by installation.

## Before you start...

Proper installation is the installer's responsibility. A qualified technician should install this downdraft vent system. Make sure you have everything necessary for correct installation. It is the responsibility of the installer to comply with the installation clearances specified in these instructions.

**Check location** where downdraft vent and cooktop will be installed. The location should be away from strong draft areas, such as windows or doors and strong heating vents or fans.

**Electrical ground** is required. See Electrical requirements.

If **cabinet has a drawer**, the drawer will need to be removed and the drawer fronts installed permanently to front of cabinet.

**Countertop opening dimensions** that are shown must be used. Given dimensions provide 0" clearance.

**36" base cabinet** is recommended for the 30" downdraft vent.  
**42" base cabinet** is recommended for the 36" downdraft vent.

**Note:** The downdraft vent is located directly behind the cooktop. Install downdraft vent first.

## ⚠ WARNING:

**Potential Burn Hazard.** To reduce risk, start the downdraft vent before using the cooktop. If cabinets are located above cooktop, avoid using the cabinets while the cooktop is in use. Failure to do so may result in serious burn injury.

## NOTE:

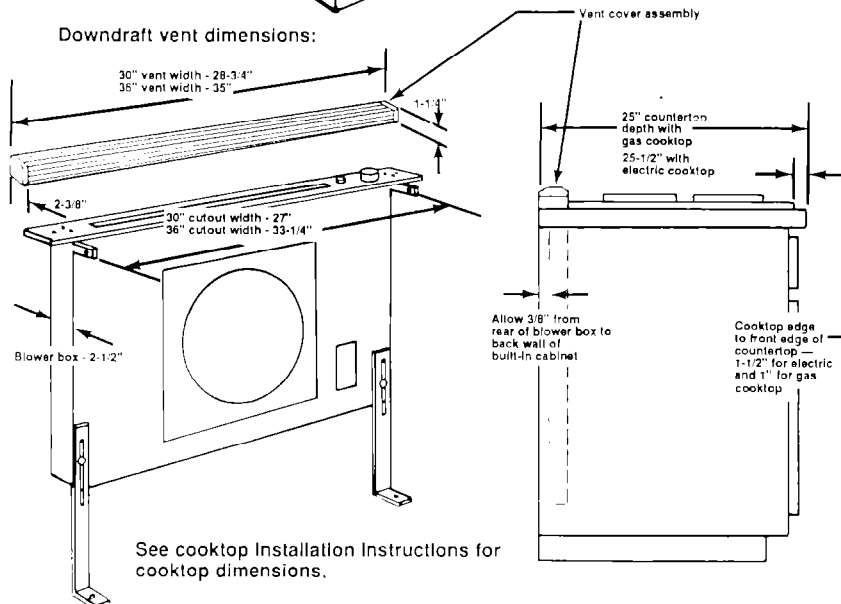
It is the customer's responsibility to:

- contact a qualified, electrical installer.
- assure that electrical installation is adequate and in conformance with National Electrical Code, ANSI/NFPA 70-1987\*\* and local ordinances.

## FOR YOUR SAFETY:

Special care must be taken when drilling holes into the wall. Electrical wires may be concealed behind wall covering.

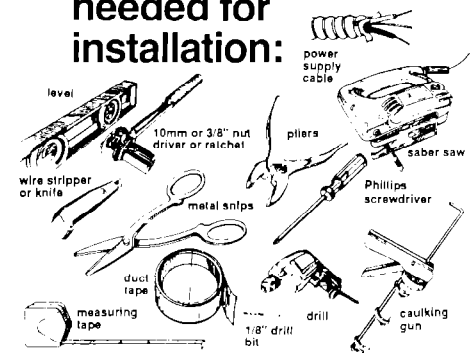
## Downdraft vent dimensions:



See cooktop installation instructions for cooktop dimensions.

PANEL A

## Tools and materials needed for installation:



## Mobile Home Installation

The installation of this downdraft vent must conform to the Manufactured Home Construction and Safety Standards, Title 24 CFR, Part 3280 (formerly the Federal Standard for Mobile Home Construction and Safety, Title 24, HUD, part 280). Four-wire power supply must be used and the appliance wiring must be revised. See Electrical requirements.

Copies of the standards listed may be obtained from:  
\*\* National Fire Protection Association  
Battery March Park  
Quincy, Massachusetts 02169

# Electrical requirements

Electrical ground is required on this appliance.

## ⚠ WARNING:

**Electric Shock Hazard.** Improper connection of the equipment-grounding conductor can result in a risk of electrical shock. Check with a qualified electrician or service technician if you are in doubt as to whether the appliance is properly grounded.

**IMPORTANT:** Save Installation Instructions for the local electrical inspector's use.

**A.** It is the personal responsibility and obligation of the customer to contact a qualified electrician to assure that the electrical installation is adequate and is in conformance with the National Electrical Code, ANSI/NFPA 70-1987\*\* and local codes and ordinances.

Copies of the standards listed may be obtained from:  
\*\* National Fire Protection Association  
Battery March Park  
Quincy, Massachusetts 02169

**B.** A 120-volt, 60-Hz, AC only, 15- or 20-ampere, fused electrical supply is required. DO NOT fuse the neutral. (Time-delay fuse or circuit breaker is recommended.) It is recommended that a separate circuit serving only this appliance be provided.

**C.** DOWNDRAFT VENT MUST BE CONNECTED WITH COPPER WIRE ONLY. Aluminum wire must not be used to avoid potentially unsatisfactory connections.

**D.** Wire sizes must conform to the requirements of the National Electrical Code, ANSI/NFPA 70-1987\*\* and local codes and ordinances for the kilowatt rating of the downdraft vent. The serializing plate is located on the right side, above the wiring box on the blower box.

**E.** This appliance should be connected to the fused disconnect (or circuit breaker) box through flexible, armored or nonmetallic-sheathed copper cable (with grounding wire). Allow some slack in the cable so the downdraft vent can be moved if servicing is ever necessary.

**F.** A U.L.-listed conduit connector must be provided at each end of the power supply cable (at the downdraft vent and at the junction box). Two U.L.-listed conduit connectors for the connections at the wiring box are in the parts package.

**G.** A wiring diagram is located on the inside of the cover to the wiring box and on the back cover of these instructions.

## Electrical connection and recommended grounding method

1. Cut a 1-1/2" hole in floor or side of cabinet for power supply wire. The hole cut for electrical wiring through a wood cabinet should be sanded until smooth. A grommet (Part No. J02797) must cover the hole cut for electrical wiring through a metal cabinet.

2. Run flexible armored or nonmetallic sheathed copper cable (with grounding wire) from fused disconnect circuit breaker or junction box through the cabinet hole to downdraft vent location. A U.L.-listed conduit connector must be installed at each end of the power supply cable (at the downdraft vent and at the junction box).

3. See installation steps to connect power supply to the downdraft vent.

PANEL B

# Venting requirements

Ductwork needed for installation is not included. Nine Inch round, in-line back-draft damper is provided with exterior mounted motor and must be installed. Wall cap is provided with interior mounted motor.

Determine which venting method to use. The length of ductwork and number of elbows should be kept to a minimum to provide efficient performance. The size of ductwork should be uniform. Do Not install two elbows together. Use duct tape to seal all joints in duct system. Ductwork can extend either through wall or roof. Use caulking to seal exterior wall or roof opening around cap. Figures 1-5 show common venting methods and types of materials needed.

Flexible ductwork is Not recommended. If it is used, calculate each foot of flexible ductwork as two feet of straight metal ductwork. Flexible elbows count twice as much as standard elbows. Use only metal ductwork. Use only metal ductwork.

## ⚠ WARNING:

**Potential Fire Hazard.** Venting system must terminate to the outside. Do Not terminate the ductwork in an attic or other enclosed space. This may result in a fire hazard.

## Interior mounted vent motor installation methods

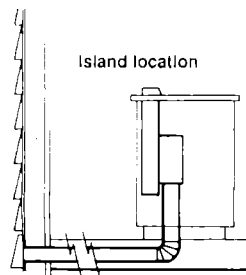


Figure 1

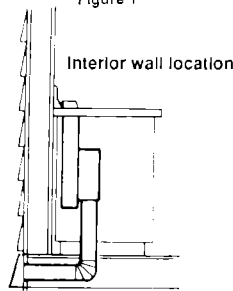
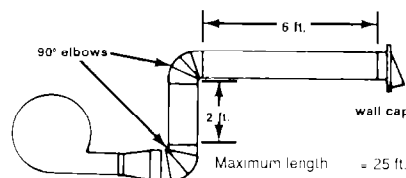


Figure 2

## Recommended duct length for interior mounted blower

Use 6" duct with a maximum length of 25 feet for duct system. For best performance, use no more than three 90° elbows. To calculate the length of system you need, add the equivalent feet for each duct piece used in the system. See the following example:

### 6" duct system



2 - 90° elbows = 10 ft.  
1 - wall cap = 0 ft.  
8 feet straight = 8 ft.

Length of 6" system = 18 ft.

## Recommended standard fittings

3-1/4" x 10" to 6" = 4.5 ft.	3-1/4" x 10" to 6" 90° elbow = 5 ft.	6" to 3-1/4" x 10" 90° elbow = 9 ft.
90° elbow = 5 ft.	6" to 3-1/4" x 10" = 1 ft.	45° elbow = 2.5 ft.
		6" wall cap min. 28 in. open = 0 ft.

## Exterior mounted vent motor installation methods

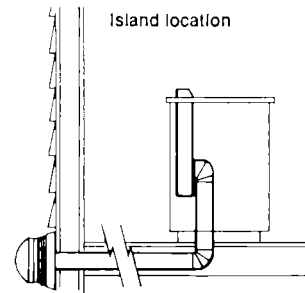


Figure 3

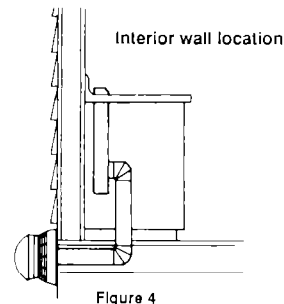


Figure 4

### Roof venting

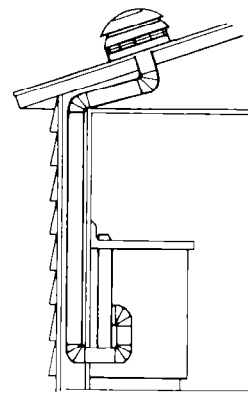


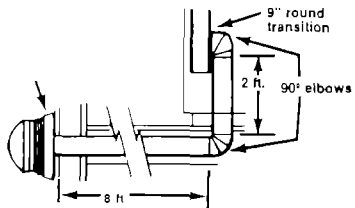
Figure 5

### Recommended duct length for exterior mounted blower

Use 9" duct with a maximum length of 55 feet for duct system. For best performance use no more than five 90° elbows.

To calculate the length of system you need, add the equivalent feet for each duct piece used in the system. See the following example:

#### 9" duct system



Maximum length = 55 feet.

- 1 - transition = 0 ft.
- 2 - 90° elbow = 10 ft.
- 1 - wall cap = 0 ft.
- 10 feet straight = 10 ft.

Length of 9" system = 20 ft.

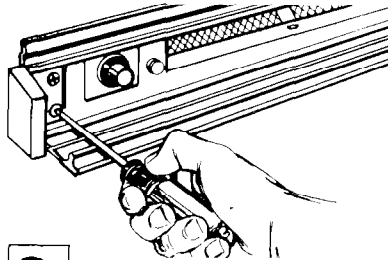
#### Recommended standard fittings

3-1/4" x 14" to 9" = 4.5 ft.	3-1/4" x 14" to 9" 90° elbow = 5 ft.	9" to 3-1/4" x 14" to 90° elbow = 9 ft.
90° elbow = 5 ft.	9" to 3-1/4" x 14" = 1 ft.	45° elbow = 2.5 ft.

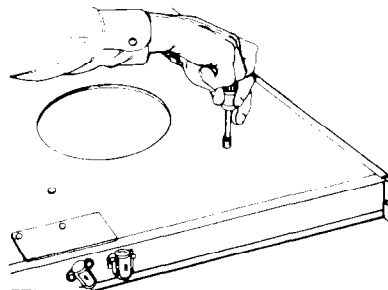
## Now start...

### Interior located blower —

- 1.** Place cardboard or other form of protection on top of a flat surface where you can easily assemble the downdraft vent system. Remove downdraft blower box and motor section from cartons. Remove any shipping materials, tape and protective film from downdraft blower box and motor. Remove parts package from inside blower box opening. Remove capacitor from motor.

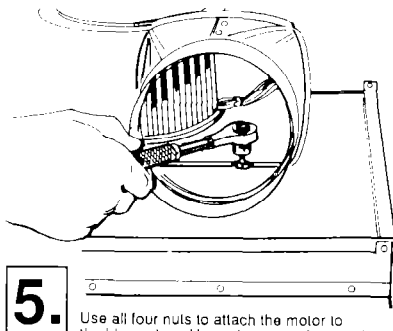


- 2.** Remove the 4 screws (2 each side) that secure the vent cover assembly. Place screws and cover assembly in a safe place.

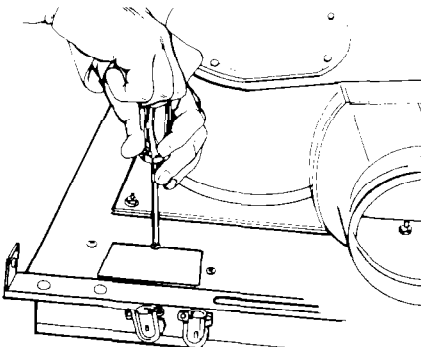


- 3.** Remove the four nuts from the blower box using a 10mm or 3/8" nut driver or ratchet.

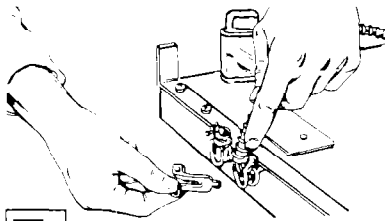
- 4.** Determine which direction (right, left or down) the ductwork will run from the blower duct when installed in the cabinet. Place the motor on the blower box so that the duct opening is in the position you need to complete the ductwork.



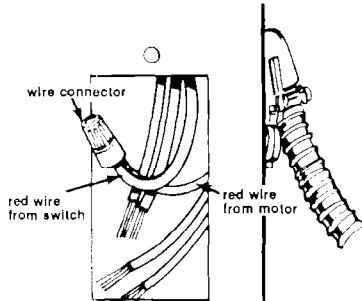
- 5.** Use all four nuts to attach the motor to the blower box. Use a 10mm or 3/8" ratchet to tighten the nut located inside the duct opening. Be sure to tighten this nut or vibration may occur, causing noise during operation.



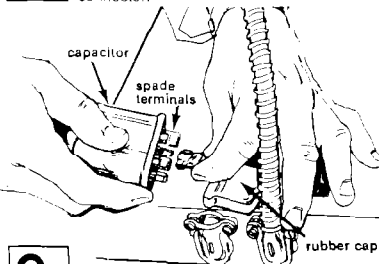
- 6.** Remove the wiring box cover screw. Place cover and screw in a safe place. Pull the wires from the switch through opening.



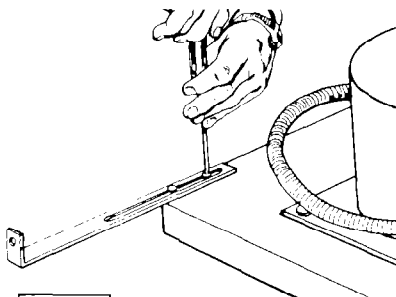
- 7.** Remove the two conduit connectors from the parts package. Insert one into each of the openings in the side of the blower box. Tighten the locking rings. Loosen screws on the top conduit connector. Thread wires from motor conduit through conduit connector and through the opening of the wiring box. Tighten the conduit connectors screws.



- 8.** Connect the red wire from the motor to the red wire from the switch using a wire connector.



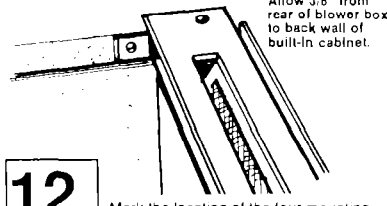
- 9.** Remove the rubber cap from the capacitor. Thread the two, brown wires with spade terminals through the rubber cap of the capacitor. Attach one wire to one of the inside, capacitor terminals. Then attach the other wire to the other inside, capacitor terminal. Replace the rubber cap over the top of the capacitor. Put the capacitor into the lower section of the wiring box.



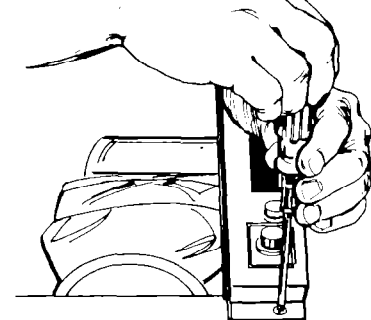
- 10.** Use a Phillips screwdriver to remove the screws that attach the legs to the blower box. Place the slotted area of legs over the area where the screw openings are located. Replace screws but Do Not tighten screws.



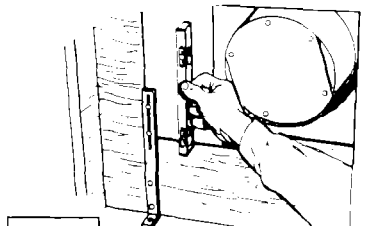
- 11.** Insert downdraft blower box and motor into countertop cutout. Two people are recommended to support the weight of the downdraft vent during lifting. Position downdraft vent so it is centered in cutout and parallel with the front edge of cutout.



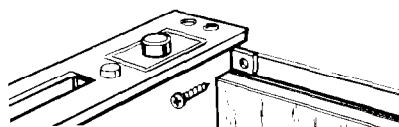
- 12.** Mark the location of the four mounting holes (two on top and two on each side). Lift the downdraft vent slightly and carefully move to front of cutout. Drill holes using 1/8" drill bit. If you cannot drill through the top surface of the countertop material, use just the two side mounting positions.



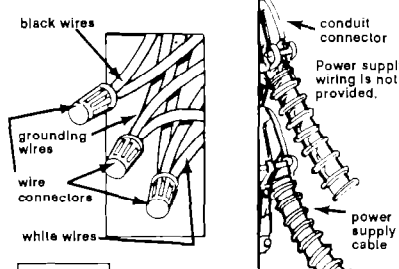
- 13.** Lift the downdraft vent back into position. Use two mounting screws to secure the downdraft vent through the top of the countertop (one on each side). If you are only using the two side mounting screws, insert screws but Do Not tighten at this time.



- 14.** Place a level against the face of the blower box. Lower legs to floor of cabinet. Adjust position of legs until blower housing is level. Mark and drill starting holes for screws that will attach legs to cabinet floor. Check again that blower housing is level. Tighten the screws that attach the legs to the blower box.



- 15.** Use two mounting screws to secure downdraft vent to the sides of countertop cutout. If the side mounting screws were inserted in Step 13, tighten screws now.



- 16.** Loosen the screws on the lower conduit connector. Thread the power supply cable through the conduit connector. Tighten the screws on the conduit connector.

**Disconnect power supply.**  
Connect the three, white wires together with a wire connector.  
Connect the three, green, grounding wires together with a wire connector. Connect the two black wires together with a wire connector.  
Replace wiring box cover.

- 17.** Turn power supply on. Check the operation of the blower, speed control and indicator light. If one does not operate, disconnect power source and check that wire connections have been made correctly.

- 18.** Connect 6" ductwork to blower duct. Position ductwork to avoid wall studs and floor joists. Complete all ductwork. Use duct tape to seal all joints. Ductwork must end with a wall or roof cap.

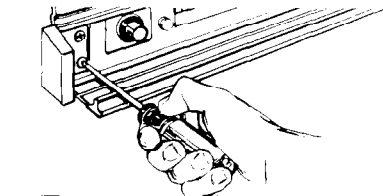
- 19.** Replace the vent cover using the four screws removed in Step 2.

- 20.** Install cooktop according to installation instructions provided with the cooktop.

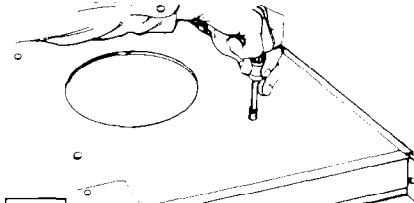
### Exterior located blower —

Exterior roof-mounted system requires Roof Mount Kit, Part No. 4173296.

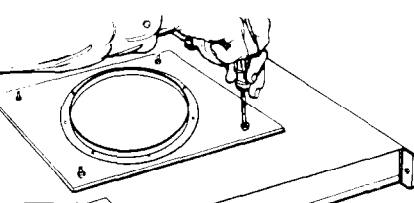
- 1.** Place cardboard or other form of protection on top of a flat surface where you can easily assemble the downdraft vent system. Remove downdraft blower box and motor section from cartons. Remove any shipping materials, tape and protective film from downdraft blower box and motor. Remove parts package from inside blower box opening.



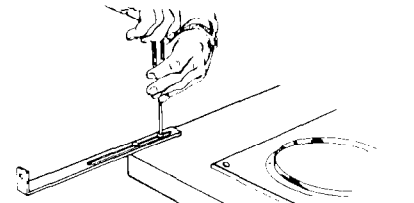
- 2.** Remove the 4 screws (2 on each side) that secure the vent cover. Place screws and cover in a safe place.



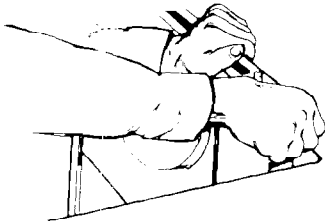
- 3.** Remove the four nuts from the blower box using a 10mm or 3/8" nut driver or ratchet.



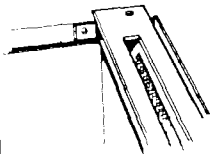
- 4.** Place adapter plate and 9" round take-off on the blower box. Use all four nuts to attach the adapter to the blower box.



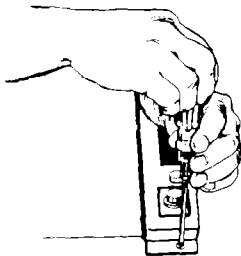
- 5.** Use a Phillips screwdriver to remove the screws that attach the legs to the blower box. Place the slotted area of legs over the area where the screw openings are located. Replace screws but Do Not tighten screws.



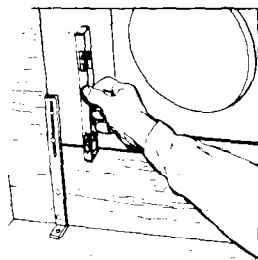
**6.** Insert downdraft vent into countertop cutout. Position downdraft vent so it is centered in cutout and parallel with the front edge of cutout.



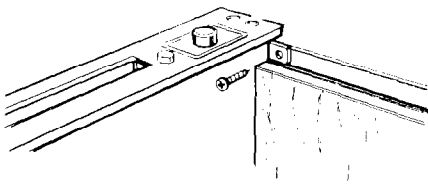
**7.** Mark the location of the four mounting holes (two on top and two each side). Lift the downdraft vent slightly and carefully move to front of cutout. Drill holes using 1/8" drill bit. If you cannot drill through the top surface of the countertop material, use just the two side mounting positions.



**8.** Lift the downdraft vent back into position. Use two mounting screws to secure the downdraft vent through the top of the countertop (one on each side). If you are only using the two side mounting screws, insert screws but Do Not tighten at this time.

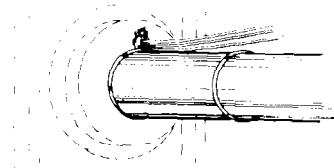


**9.** Place a level against the face of the blower box. Lower legs to floor of cabinet. Adjust position of legs until blower housing is level. Mark and drill starting holes for screws that will attach legs to cabinet. Secure legs to cabinet floor. Check again that blower housing is level. Tighten the screws that attach the legs to the blower box.



**10.** Use two mounting screws to secure downdraft vent to the sides of countertop cutout. If the side mounting screws were inserted in Step 8, tighten screws now.

**11.** Determine the location where the exterior blower assembly will be installed. Cut a 10" diameter hole in the wall or roof.



Wiring between motor and blower box is not provided.

**12.** Install exterior blower with the supply connection at the top.

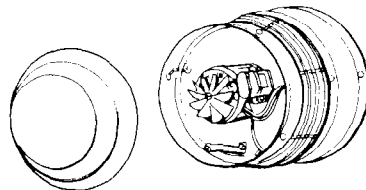
#### Wall Installations

- Use caulking compound between mounting flange and wall.

#### Roof Installations

- Follow standard roofing procedures
- The flashing sheet should be entered over the opening in the roof.
- The lower edge of the flashing should lie on top of the shingles and the upper edge should be underneath the shingles.
- Seal the assembly between the roof, fan and flashing with roofing mastic to prevent leaks.

**13.** Connect 9" ductwork to blower duct. Position ductwork to avoid wall studs and floor joists. Complete all ductwork. Use duct tape to seal all joints. Vertical ductwork for wall-mounted installations should pitch down slightly toward the vent to allow moisture to run to outside.

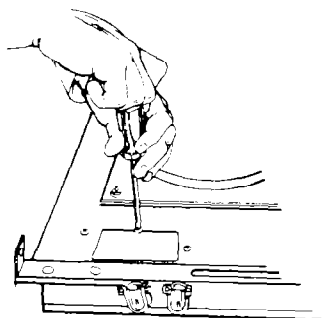


**14.** Remove the dome top. Loosen the strain relief screws. Thread the motor wiring through the strain relief. Tighten the screws on the strain relief. Connect the white and black wires of the motor wiring cable to the white and black leads of the motor with twist-on wire connectors.

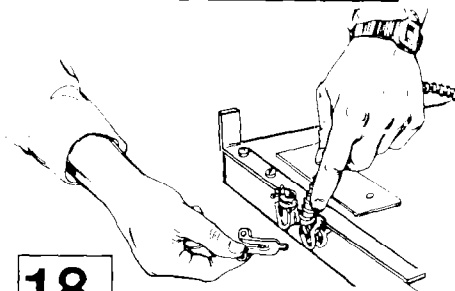
Connect the green, grounding wire of the motor wiring cable to the grounding connection screw. Place wires under clip to prevent hitting the motor cooling blade.

**15.** Run motor wiring through the duct access area to the wiring box on the blower box.

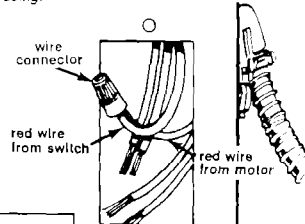
**16.** For wall-mounted installations, replace the dome top to cover the motor and connections. Roof installations require a roof cap to be used in place of the dome top.



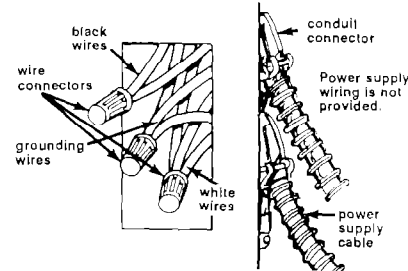
**17.** Remove the wiring box cover screw. Place cover and screw in a safe place. Pull wires through opening.



**18.** Loosen screws on the top conduit connector. Thread wires from motor conduit through conduit connector and through the opening of the wiring box. Tighten the conduit connector screws to secure the conduit to the blower housing.



**19.** Connect the red wire from the motor to the red wire from the switch using a wire connector.



**20.** Loosen the screws on the lower conduit connector. Thread the power supply cable through the conduit connector. Tighten the screws on the conduit connector.

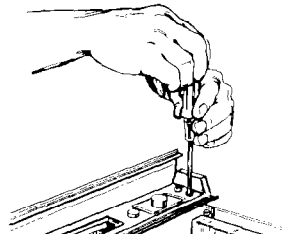
#### Disconnect power supply.

Connect the three, white wires together with a wire connector.

Connect the three, green, grounding wires together with a wire connector. Connect the two black wires together with a wire connector.

Replace wiring box cover.

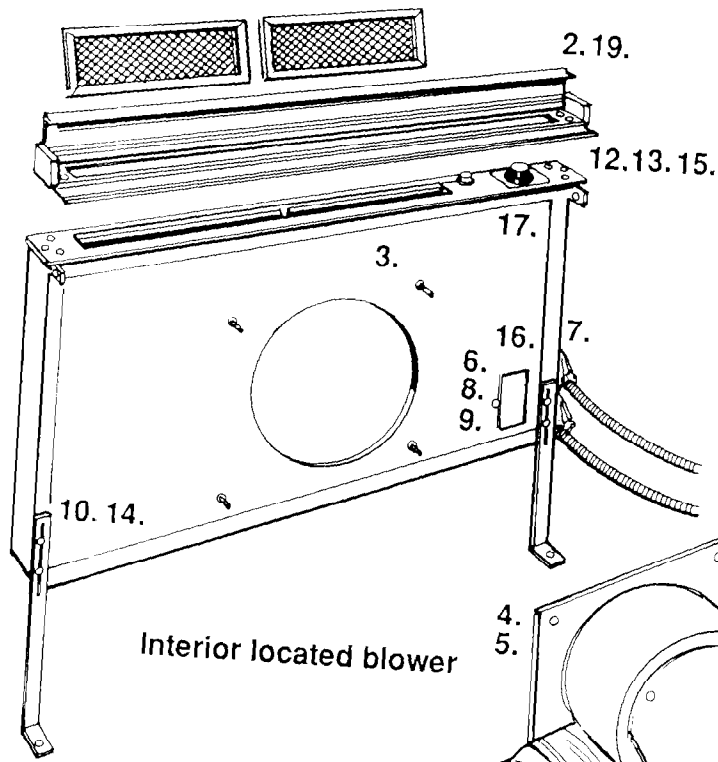
**21.** Turn power supply on. Check the operation of the blower, speed control and indicator light. If one does not operate, disconnect power source and check that wire connections have been made correctly.



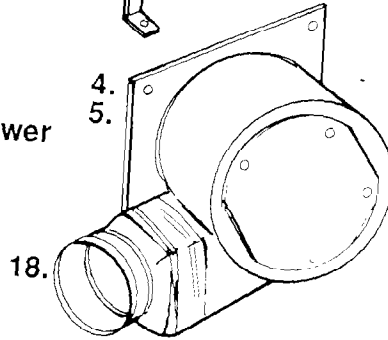
**22.** Replace the vent cover using the four screws removed in Step 2.

**23.** Install cooktop according to installation instructions provided with the cooktop.

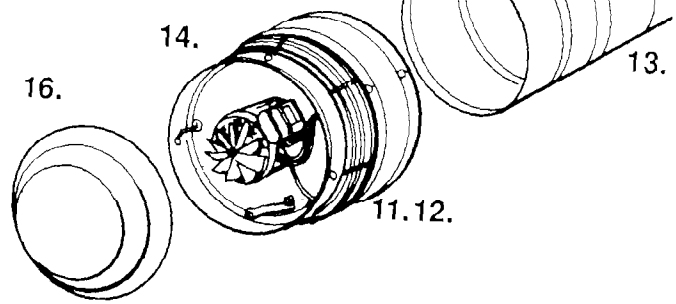
*To get the most efficient use from your new downdraft vent, read the Use and Care Information section on the back cover. Keep Installation Instructions and Use and Care Guide close by for easy reference.*



Interior located blower

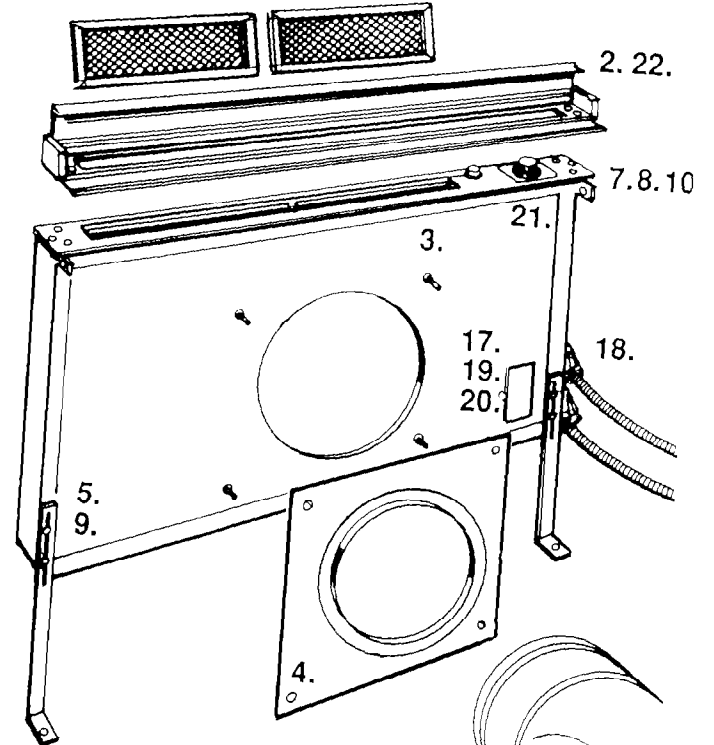


Exterior located blower



Numbers correspond to steps

PANEL C



## If downdraft vent does not operate...

First, check that circuit breaker is not tripped or fuse blown. A wiring diagram is located on the inside cover of the wiring box. Read before servicing.

## If you need assistance...

When you call, you need the downdraft vent model number and serial number. Both numbers can be found on the serial/rating plate in the lower right corner of the blower box.

## Use and Care Information

The Downdraft Venting System is designed to remove smoke, cooking vapor and odors from the cooktop area. For the best results, the vent should be operating before cooking is started. If you use large or tall utensils place them on the large rear element or burner surface.

**To Operate the Downdraft Vent:** Lift the top cover of the vent. Turn the switch to a setting that will provide the amount of venting that you will need. The switch has infinite settings. The indicator light should be on. Place cooking utensil on the surface unit. When cooking is completed, turn the surface unit off, remove the cooking utensil and turn the downdraft vent switch off.

It is recommended that the front cover to the vent be kept closed during cooking. The front cover opens to access the filters for cleaning.

**Cleaning:** The filters inside the top of the downdraft vent should be removed and cleaned frequently. The filters can be placed in the dishwasher or cleaned in a hot detergent solution. Keeping the filters clean will improve the operating efficiency of the downdraft vent system.

**Do Not use the downdraft vent if the filters are not in place.**

Clean the outside surface of the downdraft vent with soap and water. Do Not use scouring powder or abrasive solutions.

**A Clean-out Trap** at the bottom of the blower box is provided to help you retrieve any objects that might have fallen into the downdraft vent. Turn downdraft vent switch off. Remove two wing nuts and the cover to the trap. Remove the object. Replace the cover and the two wing nuts.

The clean-out trap should be removed and the area cleaned with a hot detergent solution at least twice per year. Clean the trap area if any spills into the vent have occurred.

KitchenAid® Downdraft Vent Warranty		
LENGTH OF WARRANTY:	KITCHENAID WILL PAY FOR:	KITCHENAID WILL NOT PAY FOR:
One Year Full Warranty from date of installation.	Replacement parts and repair labor to correct defects in materials or workmanship. Service must be provided by an authorized KitchenAid servicing outlet.	A. Service calls to: 1. Correct the installation of the downdraft vent. 2. Instruct you how to use the downdraft vent. 3. Replace house fuses or correct house wiring. B. Repairs when downdraft vent is used in other than normal home use. C. Damage resulting from accident, alteration, misuse, abuse, improper installation or installation not in accordance with local electrical codes. D. Any labor costs during limited warranty. E. Replacement parts or repair labor costs for units operated outside the United States. F. Pick up and delivery. This product is designed to be repaired in the home.
Five Year Limited Warranty one year full plus second through fifth year limited from date of installation.	Replacement motor if defective in materials or workmanship.	
<p><b>KitchenAid, Inc. does not assume any responsibility for incidental or consequential damages.</b> Some states do not allow the exclusion or limitation of incidental or consequential damages, so this exclusion or limitation may not apply to you.</p> <p>This warranty gives you specific legal rights and you may also have other rights which vary from state to state.</p> <p><b>How to arrange for service.</b></p> <ul style="list-style-type: none"> <li>• First call your dealer or repair service he recommends.</li> <li>• All service should be handled locally by the dealer from whom you purchased the unit or an authorized KitchenAid servicing outlet. If your local service is unsatisfactory, contact the Customer Relations Department, KitchenAid, Inc., P.O. Box 558, St. Joseph, MI 49085-0558. Call Toll Free 800-422-1230.</li> </ul>		



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