

# Installation Instructions

**Downdraft Vent Systems**

PVB94

PVB98

ZVB30

ZVB36

# Safety Information

## BEFORE YOU BEGIN

Read these instructions completely and carefully.

- **IMPORTANT** – Save these instructions for local inspector's use.
- **IMPORTANT** – Observe all governing codes and ordinances.
- **Note to Installer** – Be sure to leave these instructions with the consumer.
- **Note to Consumer** – Keep these instructions for future reference.
- **Skill Level** – Installation of these vents require basic mechanical and electrical skills.
- **Completion Time – 1 to 3 hours.**
- Proper installation is the responsibility of the installer. Product failure due to improper installation is not covered under the warranty.

If you received a damaged vent, you should immediately contact your dealer or builder.

For Monogram local service in your area,  
**1.800.444.1845.**

For Monogram service in Canada,  
**1.800.561.3344.**

For Monogram Parts and Accessories,  
call **1.800.626.2002.**

## ⚠ WARNING: SHOCK HAZARD

This appliance must be properly grounded.

## ⚠ WARNING:

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

## ⚠ 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 service 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.
- Do not attempt to repair or replace any part of the downdraft system unless it is specifically recommended in this book. All other servicing should be performed by a qualified technician.
- For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.
- 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.
- 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 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. When applicable, install any makeup (replacement) air system in accordance with local building code requirements. Visit **GEAppliances.com** for available makeup air solutions.

## ⚠ CAUTION:

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

# Design Information

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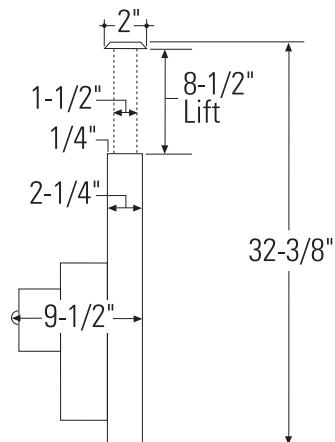
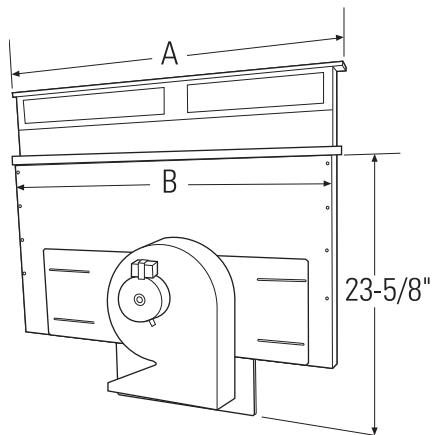
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### Installation Instructions

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## PRODUCT DIMENSIONS

	A	B
30" Models	30"	28-5/16"
36" Models	36"	33-15/16"



## ACCESSORIES

**JXRB67** – Optional accessory for indoor remote location of the blower/motor assembly. Use this kit when the blower and motor assembly will be located outside of the cabinet, such as below the cabinet floor.

# Design Information

## ADVANCE PLANNING

### Downdraft Vent and Cooktop Cutout

The installation of these downdraft vents with any GE or Monogram cooktop requires careful consideration. Before you begin, review the combination cutout illustrations on page 6.

### Countertop Requirements

The countertop must have a deep flat surface to accommodate the cooktop and the vent. Countertops with a rolled front edge and backsplash may not provide the flat surface area required.

### Base Cabinet Requirements

Review the installation preparation on Page 6 to ensure the base cabinet is deep enough to accommodate the minimum clearance and that the side and back wall locations allow the vent to be properly secured. Ensure no internal structure elements (such as cabinet corner braces) interfere with the vent or cooktop.

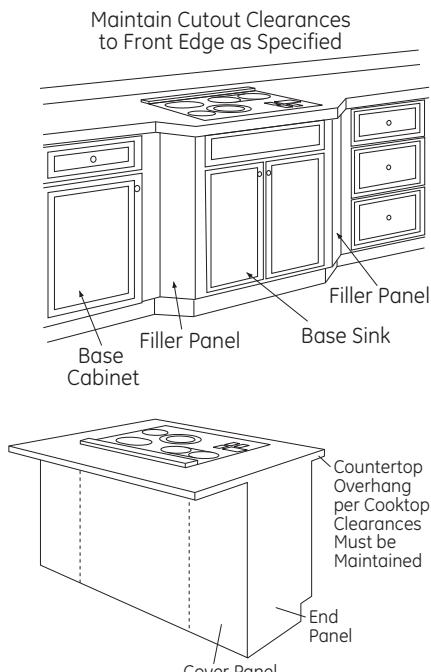
### Before you begin, you must:

1. Review countertop dimension illustrations to be sure you will have enough flat countertop surface.
2. Check to be sure that the total countertop depth required (including minimum cutout to front edge depth) allows enough space for a backsplash.
3. Review the cabinet illustration. Check to be sure the interior cabinet depth will house the cooktop burner box, the vent and the cutout clearance from the front.
4. When countertop and cabinet depth present a problem, review *Creative Solutions*.
5. Read this book completely to accurately plan the installation location, clearances and ductwork requirements.

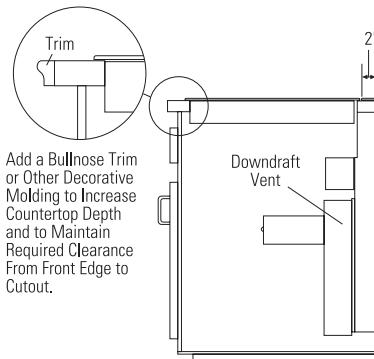
With careful planning, you can achieve a custom look with minimal adjustments.

## Creative Solutions

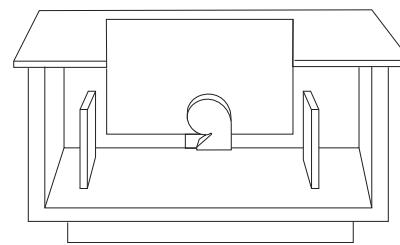
- When the kitchen design calls for an against-the-wall installation, move the base cabinet forward 3" to 5". Filler panels or complementary moldings can be added to exposed cabinet sides.
- In an island or peninsula, use an extra-deep countertop. The countertop overhang at the front can be adjusted to meet setback to cutout requirements.
- When the cutout to the front edge of the countertop requirement is more than 2", add a bullnose trim to the front edge of the countertop. Include the trim thickness when measuring the front edge to cutout requirement. By adding the trim, the cooktop can



be moved forward, providing additional countertop depth and interior cabinet space.



- When the distances between the vent and the inside cabinet side walls are more than 5-1/2" and/or the inside cabinet back wall is more than 4-1/2", false walls should be constructed inside the cabinet for securing the vent with the stabilizing brackets (refer to *Cutouts and Clearances* under *Installation Preparation*.)



# Design Information

## Clearances

- The downdraft system with blower, motor and ductwork will occupy the cabinet below the countertop and cooktop.
- The blower/motor assembly can be located below the cabinet floor. The assembly will fit between 16" floor joists. Order JXRB67 for indoor remote locations.
- Refer to your specific cooktop installation instruction for appropriate clearances.
- Installation must conform with local codes.

## Ductwork

Prepare ductwork to vent to the outdoors.

- Use the shortest and straightest duct run possible.
- The maximum permissible equivalent length for duct run is 100 feet.
- Refer to "Duct Fittings" chart to calculate equivalent length for various duct configurations.
- The downdraft blower system is designed to use 3-1/4" x 10" ductwork. It can be transitioned to 6" round.
- Ductwork MUST be vented to the outside—never into a crawl space, attic or other enclosed space.
- Determine the need for a wall cap or roof cap. Order the cap in advance.
- When applicable, install any makeup (replacement) air system in accordance with local building code requirements. Visit **GEAppliances.com** for available makeup air solutions.

## Electrical and Gas Locations

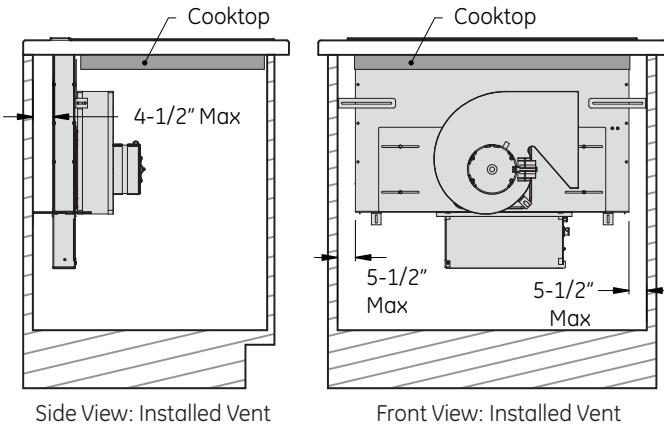
Plan the placement of the electrical outlet and gas connections (if used) carefully. Electrical outlets and gas connections cannot be placed on the back wall of the cabinet because it may interfere with the downdraft plenum. Refer to POWER SUPPLY section for information on location of electrical and gas connections.

- Install a standard electrical outlet on the right side of the cabinet within reach of the vent's two-foot-long power cord.
- The vent and a GE or Monogram gas cooktop combination can operate from the same 120-volt standard duplex outlet.
- Electric cooktops must operate from a separate 240-volt junction box.
- A 90° elbow (not supplied) can be installed onto the inlet of the gas cooktop and route the gas connections to avoid interference when installed with a downdraft vent or other cabinetry features.
- The hood must vent down or to the left when installed with a GE or Monogram gas cooktop to avoid interference with the inlet of the gas cooktop.

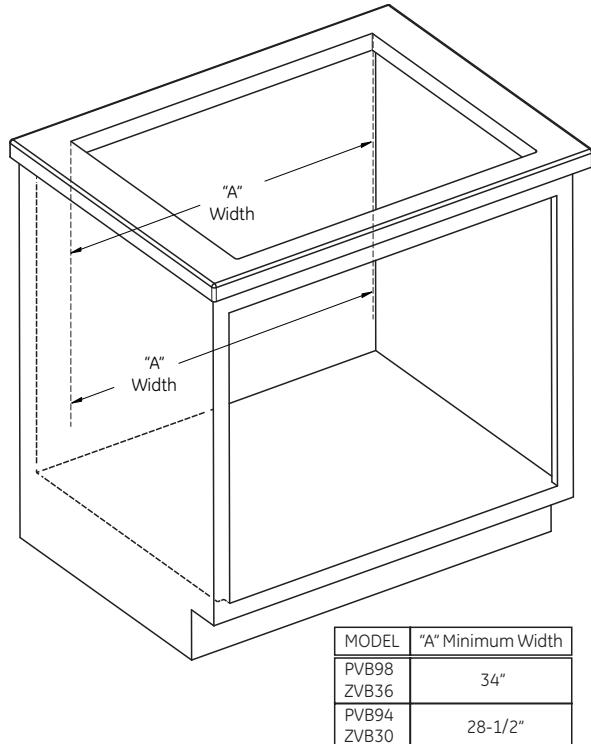
# Installation Preparation

## CUTOUTS AND CLEARANCES

- Measure carefully when cutting the countertop.
- Make sure sides of the opening are parallel and rear and front cuts are exactly perpendicular (right angles) to the sides.
- Measure to be sure there is room for clearances to the front edge of the countertop.
- Refer to cooktop installation instructions to be sure that models fit into the base cabinets being used.
- Draw lines on the countertop to follow as a cutting guide.
- Measure and mark cooktop and vent overlaps to be sure there is enough flat countertop depth.
- The cabinet side walls should be within 5-1/2" of the vent body. The cabinet back wall should be within 4-1/2" of the vent body (refer to *Creative Solutions*.)



- Measure the base cabinet width at the top and bottom to ensure it meets the minimum width requirements.



## 30" COOKTOP AND DOWNDRAFT COMBINATION

The cooktop must be installed per manufacturer's installation instructions.

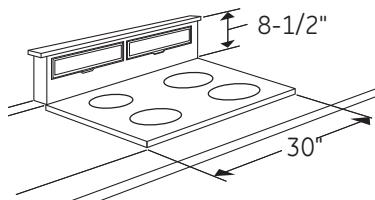
**IMPORTANT:** The countertop cutout depth requires 23-1/2" minimum flat countertop surface and 25" minimum total countertop depth.

**NOTE: Before you begin, measure and mark depth to ensure that adequate flat countertop surface is available.**

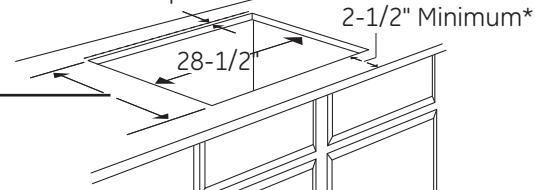
For cooktop and downdraft combination depth:

- Follow cooktop installation instructions for cooktop and downdraft combination installation.
- Otherwise, add 2-3/4" to the cooktop cutout depth.

**NOTE:** Add 2-7/8" to the cooktop cutout depth for JP328 and JP626.



3/8" Minimum flat countertop behind cutout required



\*Required to maintain UL or CSA approvals

# Installation Preparation

## 36" COOKTOP AND DOWNDRAFT COMBINATION

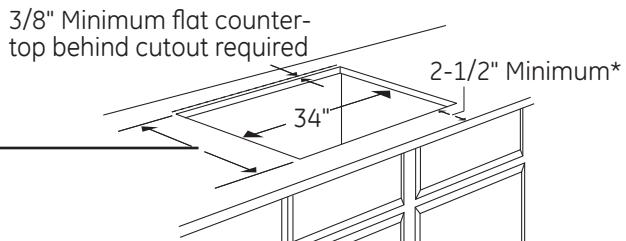
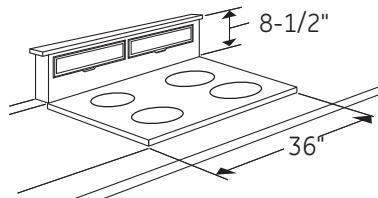
**IMPORTANT:** The countertop cutout depth requires 23-1/2" minimum flat countertop surface and 25" minimum total countertop depth.

**NOTE: Before you begin, measure and mark depth to ensure that adequate flat countertop surface is available.**

For cooktop and downdraft combination depth:

- Follow cooktop installation instructions for cooktop and downdraft combination installation.
- Otherwise, add 2-3/4" to the cooktop cutout depth.

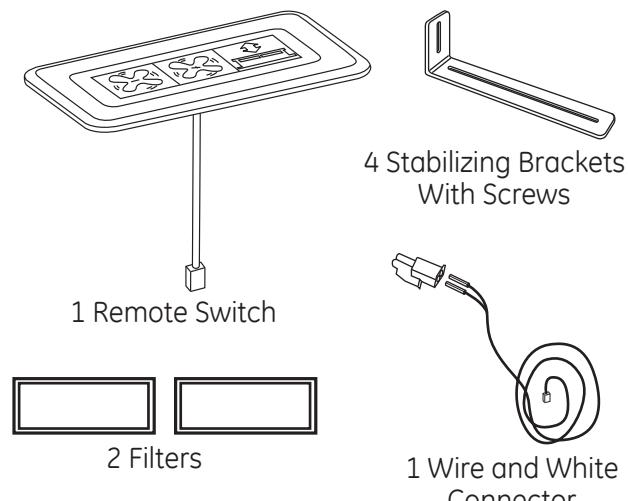
**NOTE:** Add 2-7/8" to the cooktop cutout depth for JP328 and JP626.



\*Required to maintain UL or CSA approvals

## PARTS SUPPLIED

Open the carton and remove parts package. Check contents to be sure all pieces are present.



## TOOLS AND MATERIALS REQUIRED

- Large flat-blade screwdriver
- Jigsaw
- Carpenter's square
- Ductwork to suit the installation
- Level

## REMOVE PACKAGING

- Remove the shipping materials and the carton; set carton aside. The carton can be used as a pad when changing or adjusting vent direction.

# Installation Preparation

## POWER SUPPLY

### **⚠ WARNING: SHOCK HAZARD**

FOR PERSONAL SAFETY, THIS APPLIANCE MUST BE PROPERLY GROUNDED.

Remove house fuse or open circuit breaker before beginning installation.

Do not use an extension cord or adapter plug with this appliance. Follow National Electrical Code or prevailing local codes and ordinances.

This downdraft vent must be supplied with 120V, 60 Hz. and connected to an individual, properly grounded branch circuit, protected by a 15- or 20-ampere circuit breaker or time-delay fuse.

A properly grounded 3-prong receptacle should be located within reach of the vent's two-foot power cord.

#### • **Gas Cooktops**

If this vent is installed in combination with a GE or Monogram gas cooktop, it may operate from the same duplex outlet.

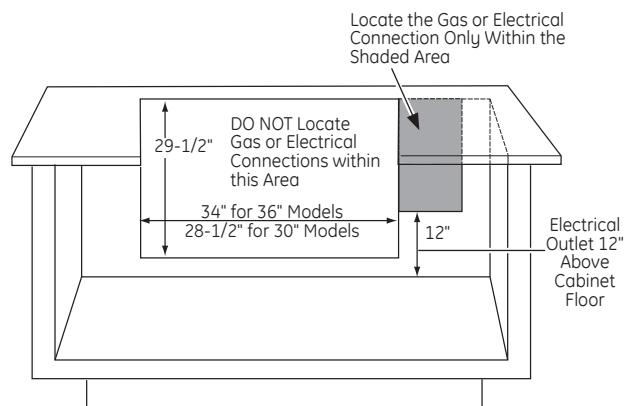
#### • **Electric Cooktops**

If this vent is installed in combination with a GE or Monogram electric cooktop, the vent must operate from a separate 120V outlet.

Locate the receptacle inside the cabinet on the right side wall (see illustration). The receptacle cannot be placed on the back of the cabinet wall where it may interfere with the downdraft plenum.

The downdraft vent power cord is to be routed beneath the cooktop and routed away from heat generated by the cooktop.

Ensure that the cooktop is installed per manufacturer's installation instructions.



## **IMPORTANT** (Please read carefully.)

The power cord of this appliance is equipped with a three-prong (grounding) plug which mates with a standard three-prong grounding wall receptacle to minimize the possibility of electric shock. The customer should have the wall receptacle and circuit checked by a qualified electrician to make sure the receptacle is properly grounded and has correct polarity.

- Where a standard two-prong wall receptacle is encountered, it is the personal responsibility and obligation of the customer to have it replaced with a properly grounded three-prong wall receptacle.

**Do not, under any circumstances, cut or remove the third (ground) prong from the power cord.**

**DO NOT USE AN EXTENSION CORD.**

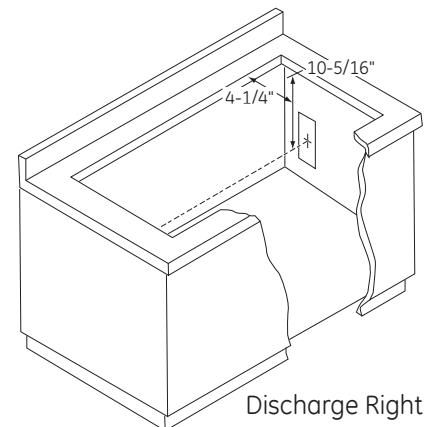
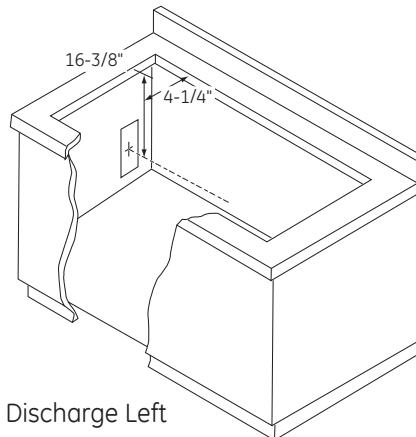
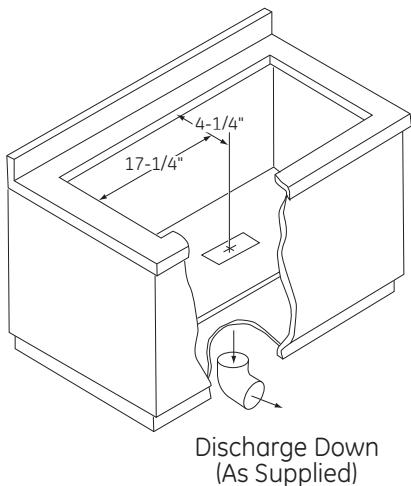
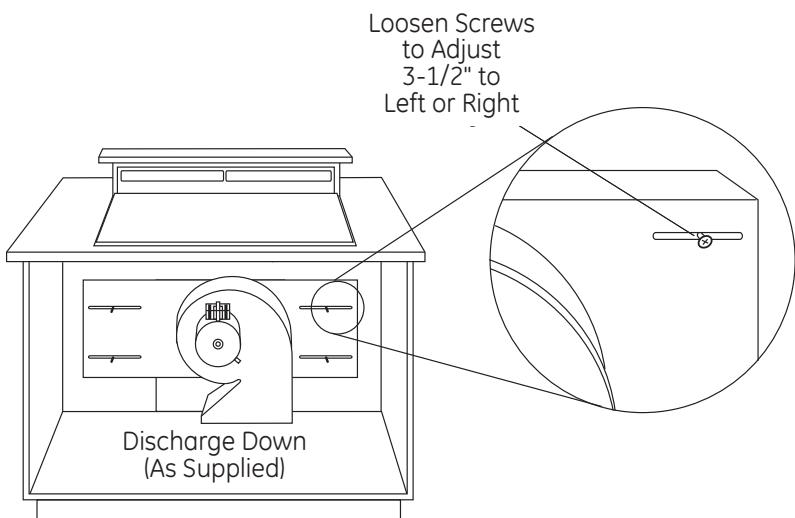
# Installation Preparation

## VENTING OPTIONS

- The downdraft vent is shipped with the discharge outlet pointing straight down and can be changed to the left or right side.
- The blower outlet is sized for 3-1/4" x 10" and can be transitioned to 6" round.
- Order JXRB67 for installation of the blower and motor below the floor.

### Side-to-Side Adjustments:

The entire blower mounting plate can be adjusted 3-1/2" to the left or right. This will help to align vent discharge to house ductwork.



### Discharge Direction

The blower assembly may be removed and turned 90° for a left- or right-side discharge.

- A left or right 90° direction adjustment should be performed before dropping into the countertop opening.
- Flatten the shipping box to use as a pad.
- Lay the vent on its back and onto the pad.

### To change to a left or right discharge:

- Remove the 4 screws holding the blower and the mounting plate assembly to the downdraft vent. Retain screws.
- Remove blower assembly; turn it over to access the 4 nuts holding the blower to the mounting plate. Remove the nuts.

**IMPORTANT:** Do not lift motor by the power cable.

- Turn the blower to the left or right discharge direction and reinstall the 4 nuts.
- Reinstall blower and mounting plate with original screws.

# Installation Preparation

## DUCT FITTINGS

Use 3-1/4" x 10" duct. It can transition to 6" round.

Use this chart to compute maximum permissible lengths for duct runs to outdoors.

**NOTE:** Do not exceed maximum permissible equivalent lengths!

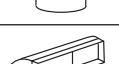
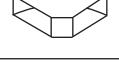
### Downdraft Vent: 100' maximum equivalent length

#### Flexible ducting:

If flexible metal ducting is used, all the equivalent feet values in the table should be doubled. The flexible metal duct should be straight and smooth and extended as much as possible.

DO NOT use flexible plastic ducting.

**NOTE:** Any home ventilation system, such as a cooktop with a downdraft exhaust mechanism, may interrupt the proper flow of combustion air and exhaust required by fireplaces, gas furnaces, gas water heaters and other naturally vented systems. To minimize the chance of interruption of such naturally vented systems, follow the heating equipment manufacturer's guidelines and safety standards such as those published by NFPA and ASHRAE. When applicable, install any makeup (replacement) air system in accordance with local building code requirements. Visit [GEAppliances.com](http://GEAppliances.com) for available makeup air solutions.

Duct Piece	Dimensions	Equivalent Length*	Quantity Used	Total Equivalent Length
	6" round, straight	1 ft. (per foot length)		
	3-1/4" x 10" straight	1 ft. (per foot length)		
	6" 90° elbow		12 ft.	
	6" 45° elbow		7 ft.	
	3-1/4" x 10" 90° elbow		14 ft.	
	3-1/4" x 10" 45° elbow		8 ft.	
	3-1/4" x 10" 90° flat elbow		33 ft.	
	6" round to 3-1/4" x 10" transition		2 ft.	
	3-1/4" x 10" round to 6" transition		2 ft.	
	6" round to 3-1/4" x 10" transition 90° elbow		4 ft.	
	3-1/4" x 10" to 6" round transition 90° elbow		4 ft.	
	6" round wall cap with damper		24 ft.	
	3-1/4" x 10" wall cap with damper		24 ft.	
	6" round roof cap		33 ft.	

Total Duct Run \_\_\_\_\_

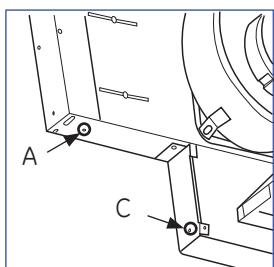
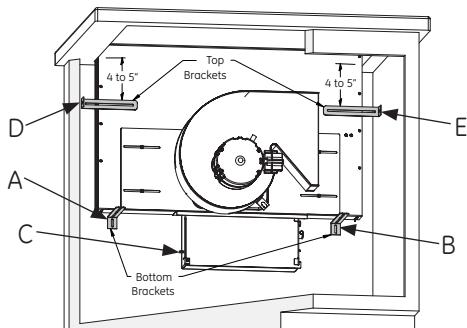
\*Actual length of straight duct plus duct fitting equivalent. Equivalent length of duct pieces is based on actual tests conducted by GE Evaluation Engineering and reflect requirements for good venting performance with any downdraft cooktop.

# Installation Instructions

## 1 INSTALL DOWNDRAFT VENT

Ⓐ Two stabilizing brackets must be installed on each side of the downdraft vent.

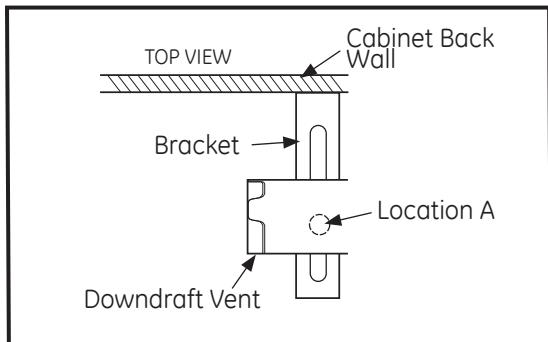
- **For right-side or straight-down blower discharge,** fasten the stabilizing brackets at locations A, B, D and E.
- **For left-side blower discharge,** fasten the stabilizing brackets at locations B, C, D and E.



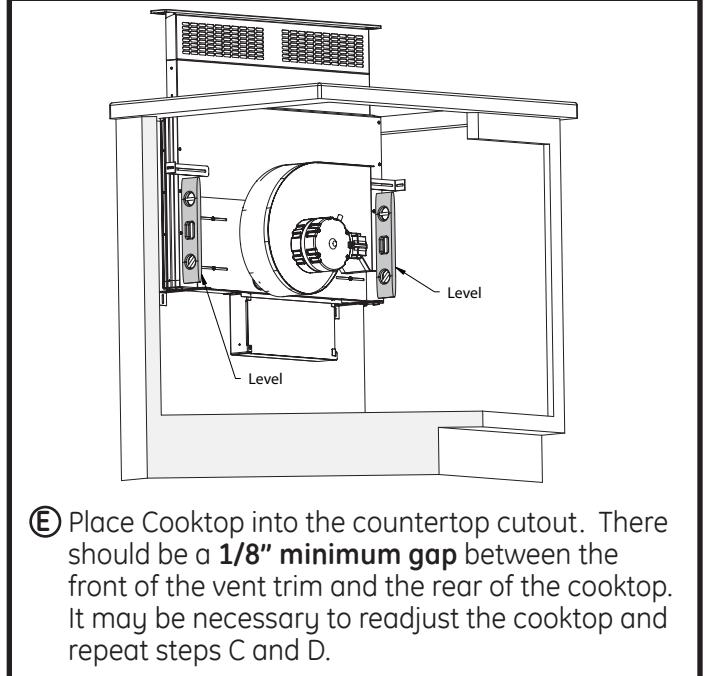
Ⓑ Place the downdraft vent into the countertop cutout so that the back flange of the vent is sitting on top of the countertop.

**Note:** The downdraft vent may need to be turned at an angle to fit into the countertop cutout.

Ⓒ Secure the screws for the stabilizing brackets to the cabinet back and side walls.



Ⓓ Check that the downdraft vent is vertically level. Operate the vent 3 to 5 times to ensure proper installation.

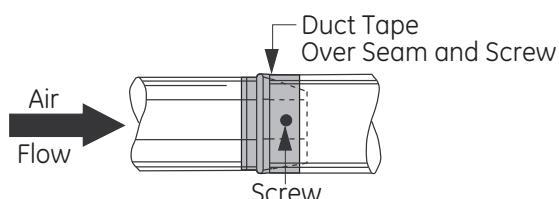


## 2 INSTALL DUCTWORK

- The downdraft blower system is designed for use with 3-1/4" x 10" ductwork. It can be transitioned to 6" round.
- Ductwork MUST be vented to the outside—never in a crawl space, attic or other enclosed space.
- 6" PVC duct should be used when installing under a concrete slab.

**NOTE:** Local building code must be followed for installation in specifying approved type and schedule of PVC duct used.

- DO NOT USE flexible plastic ducting.
- Always use appropriate roof or wall cap with damper. Laundry-type wall caps should never be used.
- Use the straightest duct run possible.
- For satisfactory performance, the duct run should not exceed 100 ft. or its equivalent length when bends or various fittings are used. Refer to the table of equivalent lengths to calculate your installation.
- Install ductwork so the piece of duct nearest the downdraft unit slots INTO the next piece of the duct. Secure the joints with self-tapping screws and apply duct tape around the joints to ensure an airtight seal.



# Installation Instructions

## 3 INSTALL REMOTE SWITCH

### ⚠️ WARNING: SHOCK HAZARD

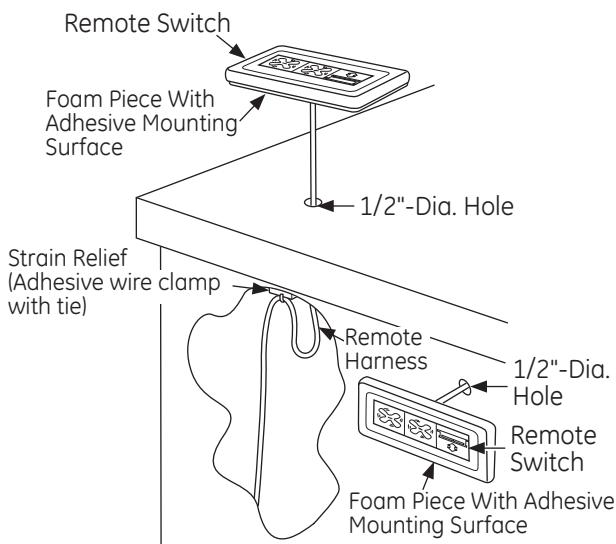
Disconnect electrical power from unit before beginning switch installation. Failure to do so could result in personal injury or damage to the electrical controls.

### ⚠️ WARNING: BURN HAZARD

The remote switch must be located so that it can be operated without reaching over the cooktop. Failure to do so may result in ignition of clothing which could cause serious injury or death.

Determine the location for the remote switch.

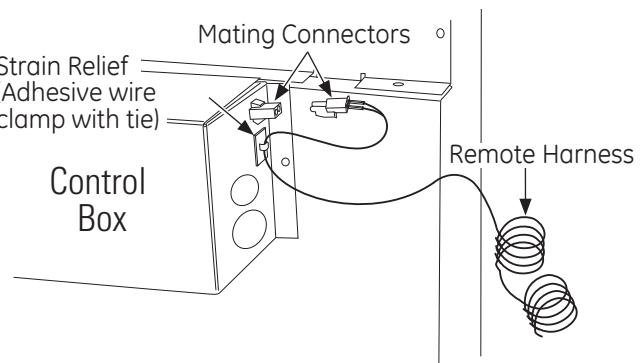
- The remote switch should be located so that the vertical distance from the floor to the remote switch is less than 48" and more than 15".
- The remote switch harness is 68" long and should be installed so that it is not pinched and is away from moving parts.



- Drill a 1/2"-dia. hole into the desired location. Use the mounting bracket as a template to locate the hole accurately. Check for interference between the switch cover, adjacent objects and cooktop/vent overlaps.
- If switch is mounted into a tile surface, drill the hole between tiles. Use locally approved caulking to cover any gaps.
- If the remote switch is not installed on the countertop, ensure that it is installed in a location that meets local codes and is easily accessible.

### Connect Remote Switch to Remote Harness

- Thread the remote harness through the 1/2"-dia. hole and attach the harness connector to the remote connector.
- Remove the paper backing on the remote switch foam piece and mount the remote switch on the countertop such that the switch connectors stay located in the 1/2"-dia. hole.
- Stick adhesive wire clamp near the 1/2"-dia. hole and attach the loose wire with a wire tie.



### Connect Wire Lead to Control Box

- Connect the mating wire ends.
- Place the adhesive wire clamps (provided) near the mating connector.
- Keep approximately 3"-long wire and attach the wire to the clamp with a wire tie. This will act as a strain relief.

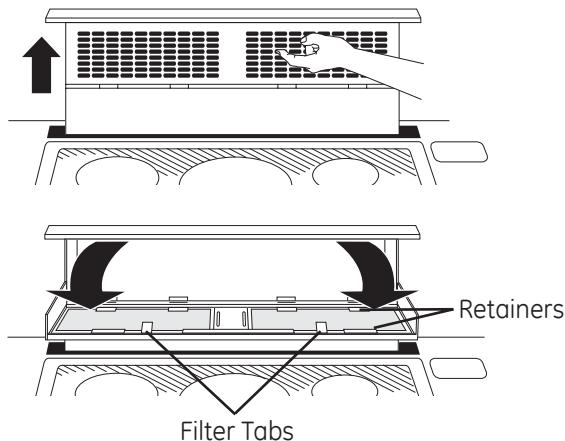
# Installation Instructions

## 4 CONNECT POWER

Plug power cord into properly grounded receptacle.

## 5 INSTALL FILTERS, CHECK OPERATION

- Press the ON/OFF pad on the control to raise the vent.
- Slip fingers into the vent holes. Lift the vent straight up and pull forward.



- Slide filter into the retainers and close the vent.
- Press the Fan Speed HIGHER pad to start the blower. Adjust the blower by pressing HIGHER or LOWER.
- To lower the vent, press the ON/OFF pad.

**NOTE:** It is not necessary to turn the fan OFF before lowering the vent. The fan will automatically turn off when the vent is lowered. When the fan is not turned off before lowering the vent, it will automatically come on at the previously set speed when the vent is fully raised.

**IMPORTANT:** The vent can be activated by pressing the pads on the switch. Do not use excessive force or sharp objects to activate the switch. Damage could occur and void the warranty.

# Notes

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# Notes

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**NOTE:** While performing installations described in this book, safety glasses or goggles should be worn.

**NOTE:** Product improvement is a continuing endeavor at General Electric. Therefore, materials, appearance and specifications are subject to change without notice.

31-10728-7  
01-13 GE



**GE Consumer & Industrial**  
Appliances  
General Electric Company  
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GEAppliances.com