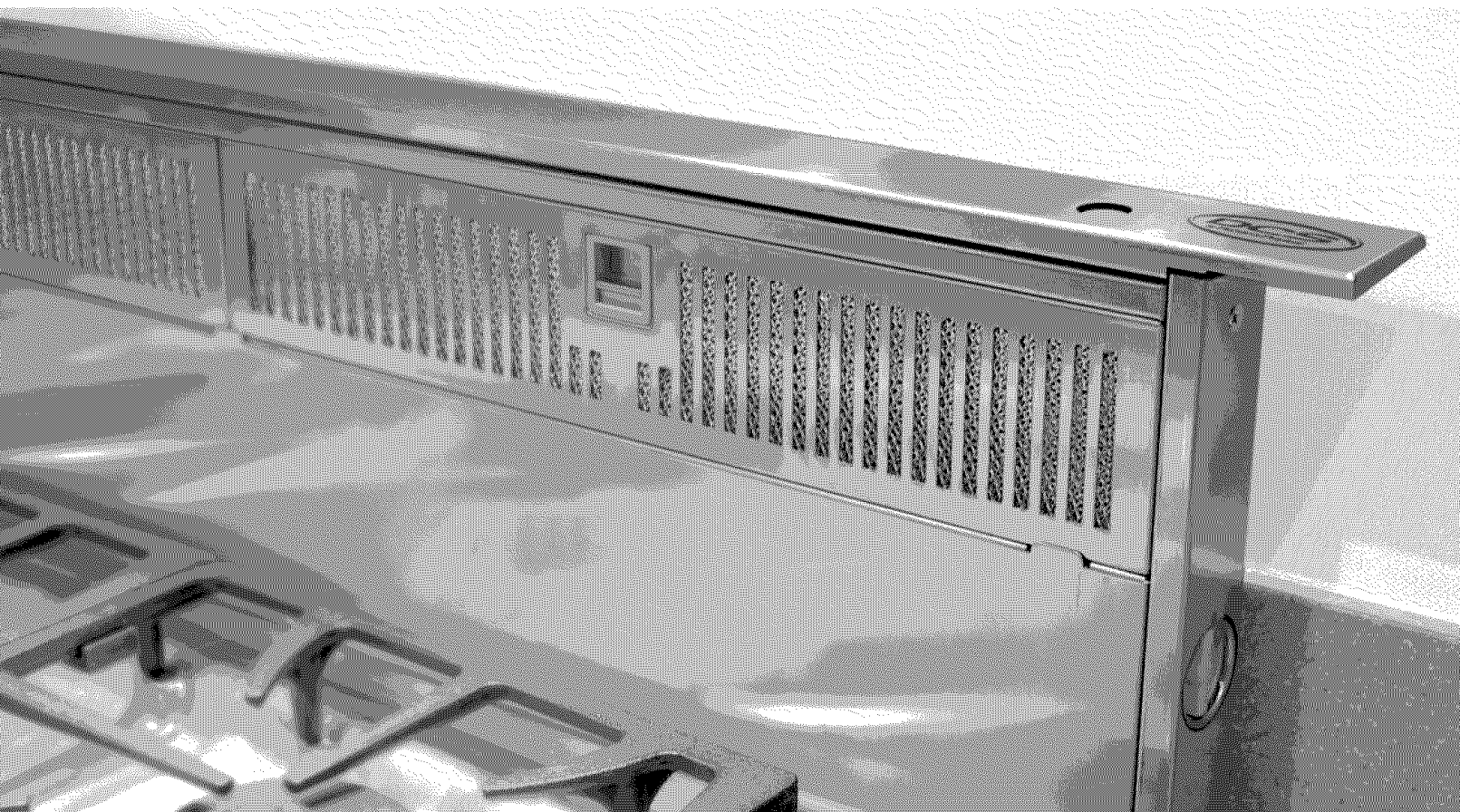




# THE PROFESSIONAL DOWNDRAFT

## Installation Guide



### MODELS:

- DD-36SS
- DD-30SS



# A MESSAGE TO OUR CUSTOMERS

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Thank you for selecting this DCS Downdraft Vent System. Because of its unique features, we have developed this Installation Guide. It contains valuable information on how to properly install your new Downdraft Vent System for years of safe and enjoyable cooking.

For your convenience, product questions can be answered by a DCS Customer Care Representative by phone: 1-888-281-5698, email: support@dcsappliances.com

or by mail:

Fisher & Paykel Appliances, Inc.  
Attention: DCS Customer Care  
5900 Skylab Road,  
Huntington Beach, CA 92647



## **WARNING**

### **TO REDUCE THE RISK OF A COOKTOP GREASE FIRE:**

Never leave surface units unattended at high settings. Boilovers cause smoking and greasy spillovers that may ignite. Heat oils slowly on low or medium setting. Always turn the Downdraft "ON" when cooking at high heat or when cooking flaming foods. Clean ventilating fans frequently. Grease should not be allowed to accumulate on fan or filter. Use proper pan size. Always use cookware appropriate for the size of the surface element.



## **WARNING**

**TO REDUCE THE RISK OF INJURY TO PERSONS IN THE EVENT OF A COOKTOP GREASE FIRE, OBSERVE THE FOLLOWING: SMOTHER FLAMES** with a close-fitting lid, cookie sheet, or metal tray, then turn off the burner. **BE CAREFUL TO PREVENT BURNS.** If the flames do not go out immediately **EVACUATE AND CALL THE FIRE DEPARTMENT. NEVER PICK UP A FLAMING PAN** - You may be burned. **DO NOT USE WATER**, including wet dishcloths or towels - a violent steam explosion will result. Use an extinguisher **ONLY** if:

1. You know you have a Class ABC extinguisher, and you already know how to operate it.
2. The fire is small and contained in the area where it started.
3. The fire department is being called.
4. You can fight the fire with your back to an exit.

**PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE.**

# TABLE OF CONTENTS

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SAFETY PRACTICES & PRECAUTIONS .....	3
PLANNING THE INSTALLATION.....	4
Venting Requirements.....	4
Electrical Requirements .....	4
SPECIFICATIONS .....	5
INSTALLATION INSTRUCTIONS .....	6-11
Tools Needed .....	6
Plan The Ductwork.....	6
Calculate the Duct Run Length.....	6
Plan And Make The Cutout .....	7
Installing The Downdraft Vent .....	8-11
WIRING DIAGRAM .....	12
HOW TO OBTAIN SERVICE .....	13
WARRANTY .....	14-15

# SAFETY PRACTICES & PRECAUTIONS

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## **WARNING:**

**ALL WALL AND FLOOR OPENINGS WHERE THE Downdraft IS INSTALLED MUST BE SEALED.**

Consult the cooktop installation instructions given by the manufacturer before making any cutouts. **MOBILE HOME INSTALLATION** - The installation of this Downdraft must conform to the Manufactured Home Construction and Safety Standards, Title 24 CFR, Part 3280 (formerly 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 (page 4).

- Venting system **MUST** terminate outside the home.
- **DO NOT** terminate the ductwork in an attic or other enclosed space.
- **DO NOT** use 4" laundry-type wall caps.
- Flexible-type ductwork is not recommended.
- **DO NOT** obstruct the flow of combustion and ventilation air.
- Failure to follow venting requirements may result in a fire.
- Electrical ground is required on this downdraft ventilation system.
- If cold water pipe is interrupted by plastic, non-metallic gaskets or other materials, **DO NOT** use for grounding.
- **DO NOT** ground to a gas pipe.
- **DO NOT** have a fuse in the neutral or grounding circuit. A fuse in the neutral or grounding circuit could result in electrical shock.
- Check with a qualified electrician if you are in doubt as to whether the downdraft is properly grounded.
- Failure to follow electrical requirements may result in a fire.



## **WARNING:**

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

Use this unit only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer. 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 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 from fuel burning equipment through the flue (chimney) 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 and other hidden utilities. Ducted fans must always be vented to the outdoors.

# PLANNING THE INSTALLATION

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## VENTING REQUIREMENTS

Determine which venting method is best for your application. Ductwork can extend either through the wall or the roof. The length of the ductwork and the number of elbows should be kept to a minimum to provide efficient performance. The size of the ductwork should be uniform. Do not install two elbows together. Use duct tape to seal all joints in the ductwork system. Use caulking to seal exterior wall or floor opening around the cap. Flexible ductwork is not recommended. If it is used, each foot of flexible ductwork used is equivalent to two feet of straight metal ductwork when calculating the duct run length. Thus, a flexible elbow equals two standard elbows. Make sure there is proper clearance within the wall or floor for exhaust duct before making cutouts. Do not cut a joist or stud unless absolutely necessary. If a joist or stud must be cut, then a supporting frame must be constructed.



### **WARNING:**

*To Reduce The Risk Of Fire, Use Only Metal Ductwork.*

## ELECTRICAL REQUIREMENTS

A 120 volt, 60 Hz AC-only electrical supply is required on a separate 15 amp circuit, fused on both sides of the line. A time-delay fuse or circuit breaker is recommended. The fuse must be sized per local codes in accordance with the electrical rating of this unit as specified on the serial/rating plate located inside the unit near the field wiring compartment.

THIS UNIT MUST BE CONNECTED WITH COPPER WIRE ONLY. Wire sizes must conform to the requirements of the National Electrical Code, ANSI/NFPA 70 -latest edition, and all local codes and ordinances. Wire size and connections must conform with the rating of the appliance. Copies of the standard listed above can be obtained from:

National Fire Protection Association  
Battery March Park  
Quincy, Massachusetts 02269

This appliance should be connected directly to the fuse disconnect (or circuit breaker) through flexible, armored or non-metallic sheathed copper cable. Allow some slack in the cable so the appliance can be moved if servicing is ever necessary. A UL Listed, 1/2" conduit connector must be provided at each end of the power supply cable (at the appliance and at the junction box). When making the electrical connection, cut a 1-1/4" hole in the wall. A hole cut through wood must be sanded until smooth. A hole through metal must have a grommet.

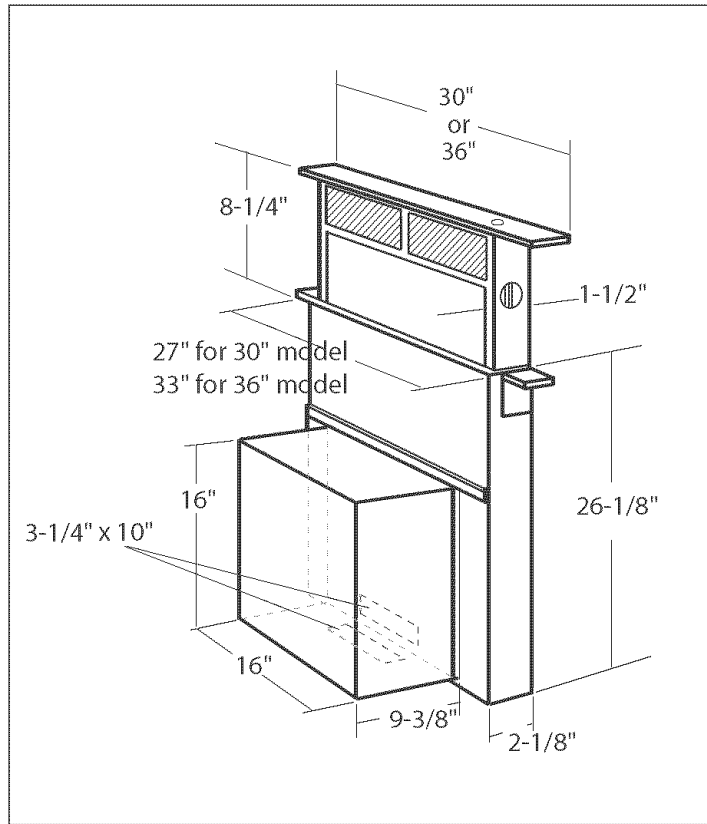
**NOTE: SUITABLE FOR USE WITH SOLID STATE SPEED CONTROLS.**

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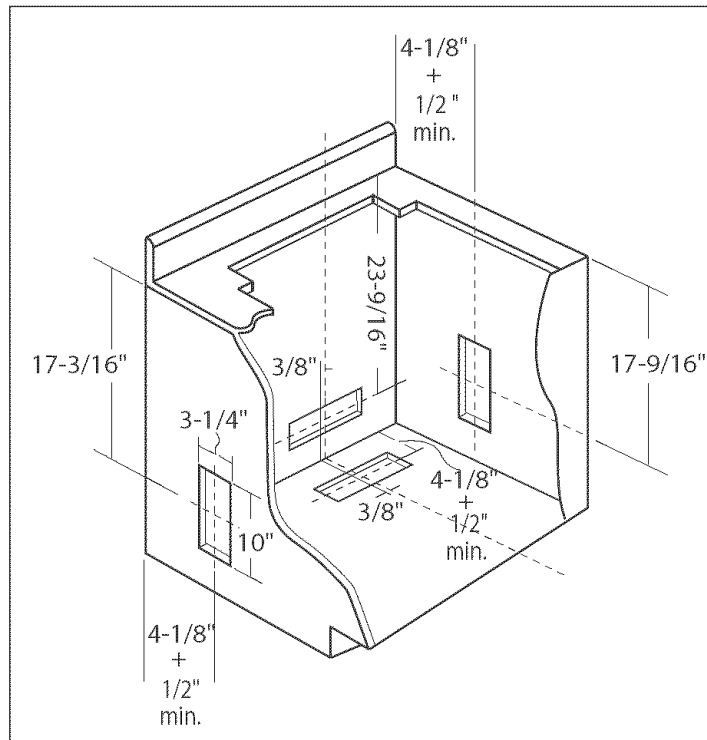
### **CAUTION:**

*For General Ventilating Use Only. Do Not Use To Exhaust Hazardous or Explosive Materials and Vapors.*

# SPECIFICATIONS



**Fig. 01 Downdraft Dimensions**



**FIG.02 Ductwork Cutout Dimensions**

# INSTALLATION INSTRUCTIONS

## TOOLS NEEDED FOR INSTALLATION

- Saber Saw or Jig Saw
- Drill
- 1-1/4 Wood Drill Bit
- Pliers
- Phillips Screwdriver
- Flat Blade Screwdriver
- Wire Stripper or Utility Knife
- Metal Snips
- Measuring Tape or Ruler
- Level
- Pencil
- Caulking Gun
- Duct Tape

## PARTS SUPPLIED FOR INSTALLATION

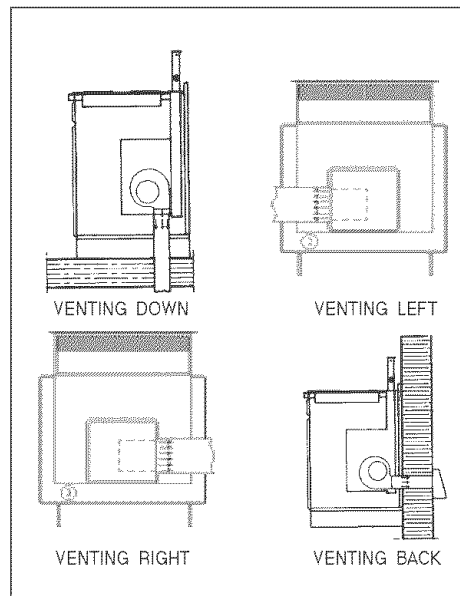
- 6 Mounting Brackets
- 2 End Caps
- 16 Screws
- 1 Backdraft Damper

## PARTS NEEDED FOR INSTALLATION

- 2 Conduit Connectors
- Power Supply Cable
- 1 Wall or Roof Cap
- All Metal Ductwork

## PLAN THE DUCTWORK

The DCS 36" and 30" downdraft vent system can be ducted in four different directions; down, left, right or back using a 3-1/4" X 10" rectangular vent. Fig. 03 illustrates venting options. Fig. 02 shows the ductwork cutout dimensions.



**FIG.03 Ducting**

## CALCULATE THE DUCT RUN LENGTH

The ductwork length should not exceed 35 equivalent feet for 3-1/4" X 10" duct, or 60 equivalent feet for 9" round duct. Calculate the length of the ductwork by adding the equivalent feet listed in Fig. 04 for each piece of duct in the complete system. An example is given in Fig. 05. For best results, use no more than three 90° elbows. Make sure that there is a minimum of 24" of straight duct between elbows if more than one is used. Do not install two elbows together. Round duct is recommended instead of rectangular duct especially if elbows are needed. Rectangular duct should transition to round as soon as possible (6" round minimum).

45° Elbow	5.0 feet
90° Elbow	7.0 feet
90° Flat Elbow	12.0 feet
Wall Cap	0.0 feet

**FIG.04**

9 Feet Straight Duct	9.0 feet
2 - 90° Elbows	14.0 feet
Wall Cap	0.0 feet
<b>Total System</b>	<b>23.0 feet</b>

**FIG.05**

# INSTALLATION INSTRUCTIONS

## PLAN AND MAKE THE CUTOUT

It is recommended that the installer draw the cooktop and downdraft cutouts on the countertop before making any cutouts to avoid mistakes. Fig. 06 shows the cutout dimensions for DCS CT-365 and CT-304 and for all other cooktops see Fig. 06a (page 8). Fig. 07 shows the tolerances between the cooktop and the downdraft. These tolerances must be observed for proper installation.



### WARNING:

*When planning the cutout for the downdraft:*

- Draw both the cooktop and downdraft cutouts on the countertop before making any cuts.
- Check that there is enough room in the cabinet for both. Failure to follow these warnings could result in damage to the countertop.



### WARNING:

*These tolerances must be observed!*

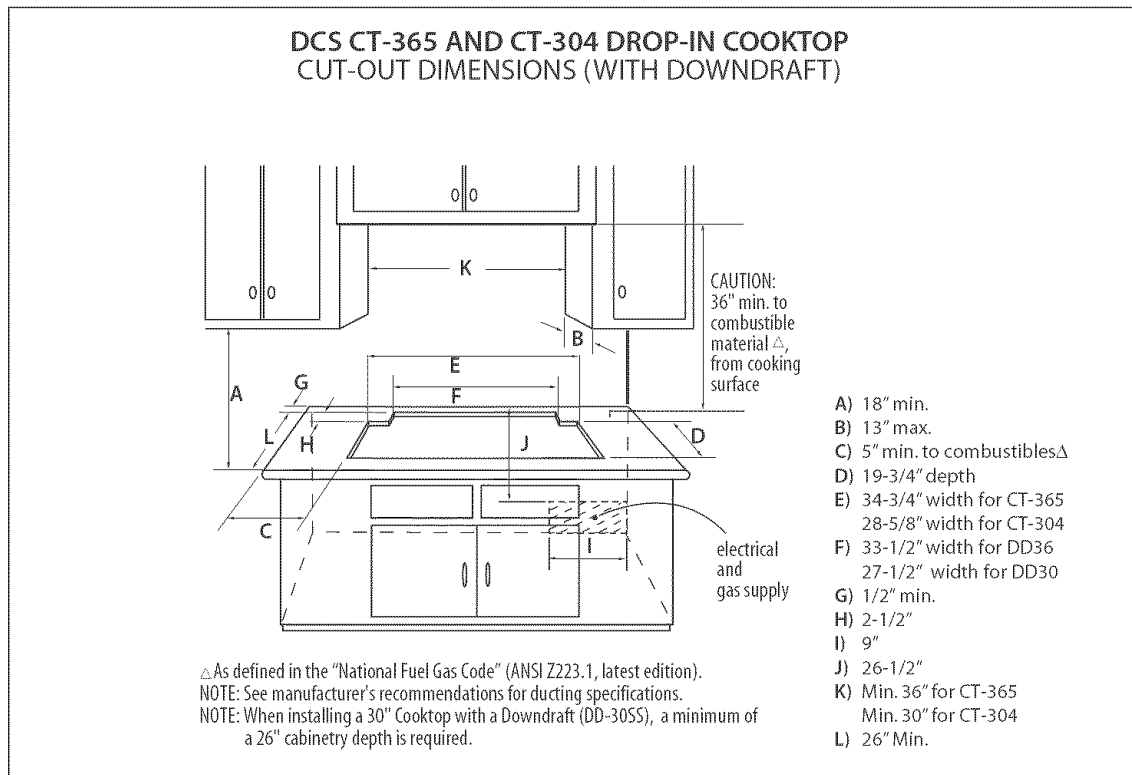


Fig. 06



# INSTALLATION INSTRUCTIONS

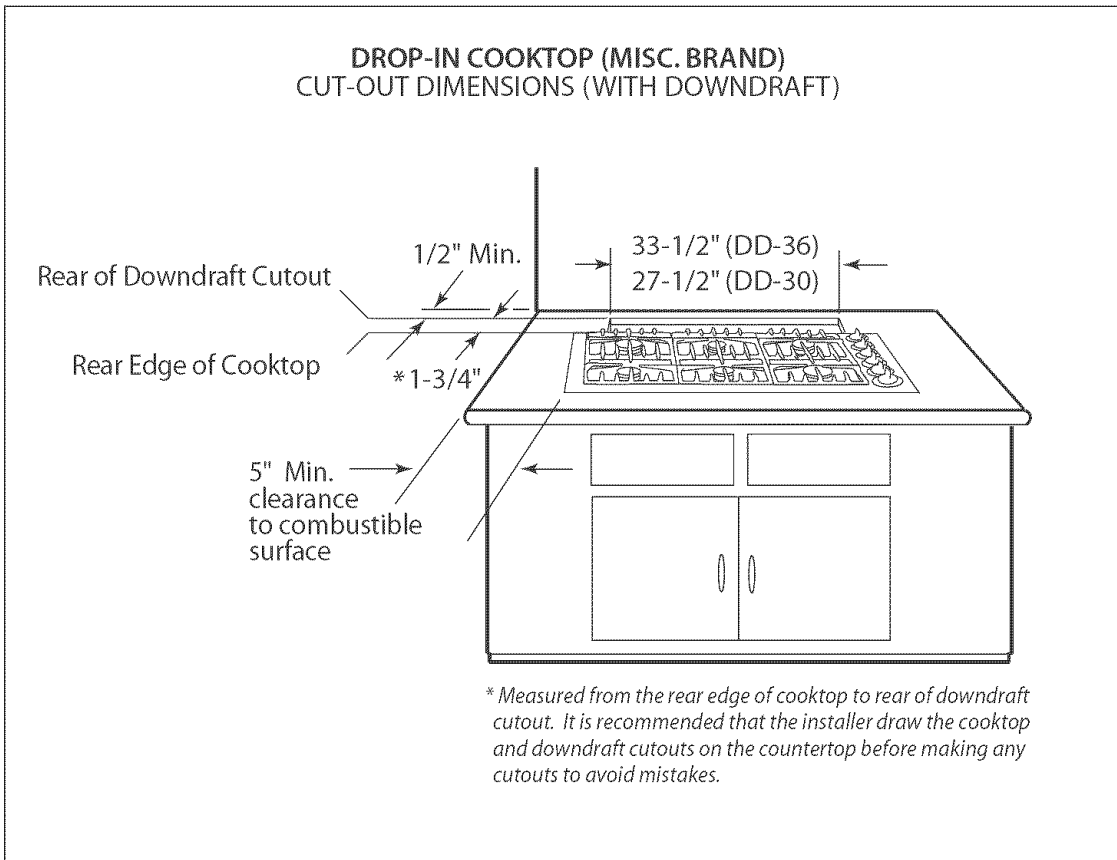


Fig. 06a

## INSTALLING DOWNDRAFT VENT

- 1) Remove the unit from the carton and place on a flat surface for assembly. Cover the surface to prevent accidental damage. Remove all downdraft parts including the 6 mounting brackets, 2 end caps, 16 screws, literature package, and backdraft damper.
- 2) Attach the overcounter support arms to the left and right sides of the downdraft body as indicated in Fig. 08. Two short screws are provided. Attach the end caps to the left and right sides of the downdraft over the overcounter support arms. Attach the lower support legs to left and right sides of the downdraft into the threaded slots on each side.

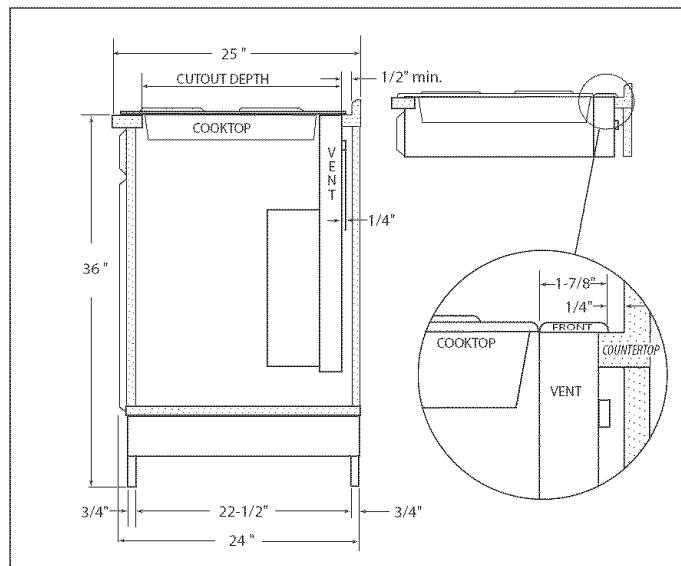


FIG.07

# INSTALLATION INSTRUCTIONS

## INSTALLING DOWNDRAFT (continued)

The lower support legs have holes for mounting to the cabinet floor and can be installed on both sides depending upon the length required. Determine if the holes should be in the front or on the sides.

- Carefully insert the unit into the cutout. Due to the size and weight, two people are recommended when lifting this unit. Make sure that the downdraft is fully seated in the cutout and the support arms rest firmly on the countertop.
- Adjust the lower support legs until both rest firmly on the cabinet floor. Place a level vertically on the front side of the blower box to make sure that the unit is level and not leaning to the front or rear. Once the unit is properly aligned, mark a starter hole on the cabinet floor where the lower support legs will attach to the cabinet floor.
- Remove the unit from the cabinet. Drill starter holes in the cabinet floor for the leg screws.
- DCS downdrafts are shipped from the factory ready to vent in the down position. If you need to vent back, left or right, then the blower must be repositioned.

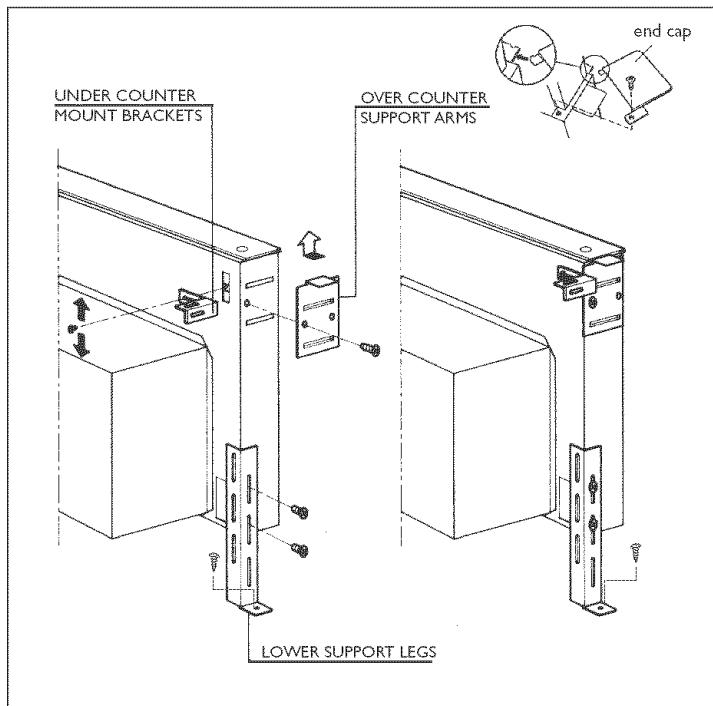


FIG.08

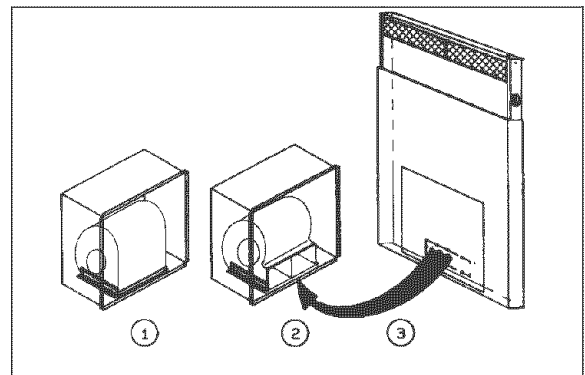


FIG.09

### To vent to the left or the right:

Four hex nuts attach the blower box to the downdraft body. Remove all four nuts and carefully remove the blower box. To vent left or right, simply rotate the blower box 90° to the left or right and re-assemble.

### To vent to the rear:

Venting to the rear requires that the blower be repositioned inside the blower box as indicated in Fig. 09. The blower is attached to the blower box by 6 screws. Remove the blower from the blower box. Note the position of the angle mounting rails on each side of the blower. To vent to the rear, both mounting rails must be repositioned on the blower as illustrated in Fig. 10. Attach the mounting rails as indicated. Re-attach the blower to the blower box. Re-attach the blower box to

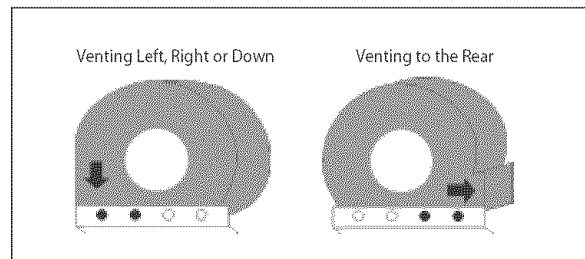


FIG.10

# INSTALLATION INSTRUCTIONS

## INSTALLING DOWNDRAFT (*continued*)

the downdraft. The square metal frame must be attached to the mouth of the blower. The exhaust knockout on the rear must be removed. A metal plate and two screws are supplied in the hardware package to cover the unused exhaust exit.

### **CAUTION:**

*Make sure that the wiring cable connecting the blower to the field wiring compartment remains securely attached under the two cable clamps.*

- 7) Attach the Backdraft Damper.
- 8) Remove the field wiring compartment cover and determine which direction the wiring will run from the appliance to the wiring box and remove the wiring knockout.
- 9) Insert the downdraft unit into the countertop cutout. Make sure that the unit is firmly placed at the rear of the cutout. Fasten the legs to the cabinet floor using the two longer Phillips head screws supplied in the hardware package.



### **WARNING:**

*When attaching the Under Counter Mounting Brackets:*

- *DO NOT drill into the countertop surface.*
- *Check that the mounting screws are the proper length and will not extend through the countertop surface when tightened. Failure to follow these warnings could result in damage to the countertop surface.*

- 10) Attach the downdraft to the countertop using the undercounter mounting brackets (Fig.08). This system is designed to adjust to different countertop thicknesses. Using the small Phillips head machine screws in the hardware package, attach one undercounter mounting bracket to the slot on the upper right corner of the unit. Attach the other end of the bracket to the underside of the countertop.
- 11) Thread the power supply cable through the wiring knockout into the field wiring compartment.

Connect the three **white** wires together with a twist-on wire connector. Connect the two **black** wires with a twist-on wire connector. Attach the **Green** (or **Green and Yellow**) ground wire to the eyelet with the **green** grounding screw. Replace the field wiring compartment cover.

- 12) Turn the power supply on. Push and hold the Up/Down button momentarily. The downdraft will rise out of the countertop and stop in the fully extended position. Position the top strip over the the top of the downdraft, lining up the fixing hooks and the hole for the push

button. Snap into place. Turn the blower on. The blower control switch is located on the right hand side of the plenum as indicated in Fig. 11. If the blower does not work, refer to section entitled "If The Blower Does Not Operate" located on page 11"

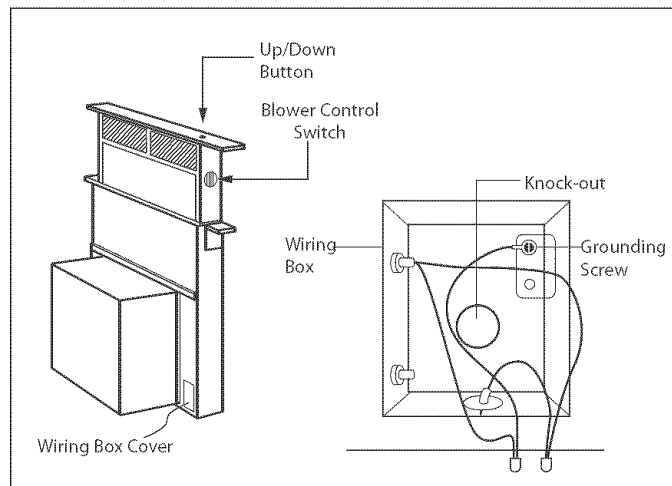


FIG.11

# INSTALLATION INSTRUCTIONS

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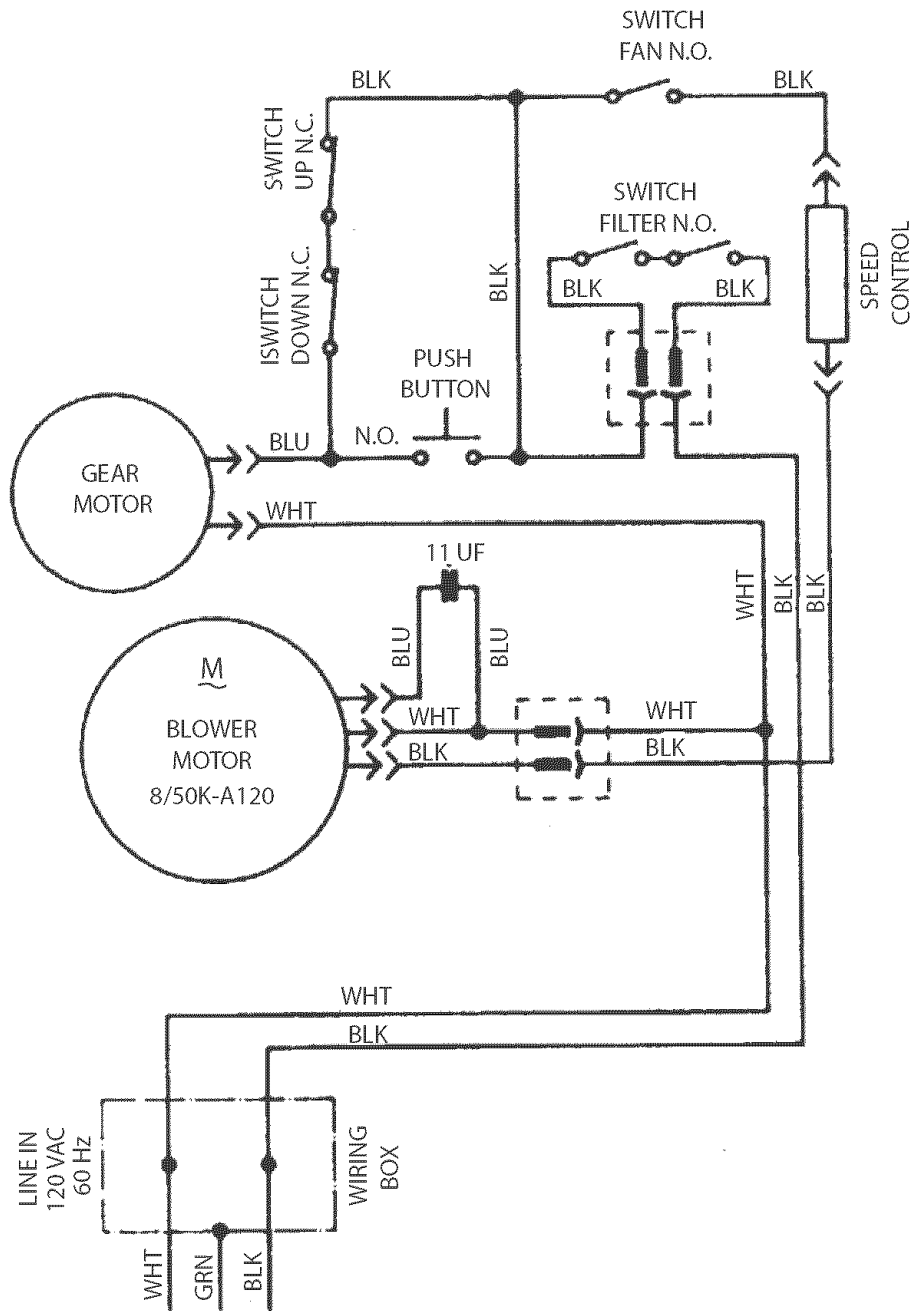
## INSTALLING DOWNDRAFT (*continued*)

- 13) Connect the ductwork to the Backdraft damper. Seal all joints with duct tape and vent to the outside of the home.
- 14) Install the cooktop according to the cooktop manufacturer's instructions. Check to make sure that the rear edge of the cooktop overlaps the front edge of the downdraft by 3/8".

## IF THE BLOWER DOES NOT OPERATE:

- 1) Check that the circuit breaker is not tripped or the house fuse blown.
- 2) Check that the grease filters are properly installed. (See the section on Safety Microswitches page 4 of Use and Care Guide).
- 3) Disconnect the power supply and check that the wiring connections have been made properly.

# WIRING DIAGRAM



# SERVICE

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## HOW TO OBTAIN SERVICE:

Before you call for service:

- 1) Is the circuit breaker tripped or the fuse blown?
- 2) Is there a power outage in the area?
- 3) Are the grease filters properly installed?
- 4) Will the unit go up/down and the motor control is ON?

For warranty service, contact DCS Customer Care at (888) 281-5698. Before you call, please have the following information ready:

- Model Number
- Serial Number
- Date of installation
- A brief description of the problem

Your satisfaction is of the utmost importance to us. If a problem cannot be resolved to your satisfaction, please write at:

*Write:*  
*Fisher & Paykel Appliances, Inc.*  
*Attention: DCS Customer Care*  
*5900 Skylab Road*  
*Huntington Beach, CA 92647*

## LIMITED WARRANTY

When you purchase a new DCS Ventilation Product for personal or consumer use you automatically receive a One year Limited Warranty covering parts and labor for the entire product, and a Five year Limited Warranty on the switches and motor (parts only) for servicing within the 48 mainland United States, Hawaii, Washington D.C and Canada. In Alaska the Limited Warranty is the same except that you must pay to ship the Product to the service shop or for the service technician's travel to your home. Products for use in Canada must be purchased through the Canadian distribution channel to ensure regulatory compliance.

If the Product is installed in a motor vehicle, boat or similar mobile facility, you receive the same One year Limited Warranty, but you must bring the vehicle, boat or mobile facility containing the Product to the service shop at your expense or pay the service technician's travel to the location of the Product.

## FISHER & PAYKEL UNDERTAKES TO:

Repair without cost to the owner either for material or labor any part of the Product, the serial number of which appears on the Product, which is found to be defective. In Alaska, you must pay to ship the Product to the service shop or for the service technician's travel to your home. If the Product is installed in a motor vehicle, boat or similar mobile facility, you must bring it to the service shop at your expense or pay for the service technician's travel to the location of the Product. If we are unable to repair a defective part of the Product after a reasonable number of attempts, at our option we may replace the part or the Product, or we may provide you a full refund of the purchase price of the Product (not including installation or other charges).

This warranty extends to the original purchaser and any succeeding owner of the Product for products purchased for ordinary single-family home use. All service under this Limited Warranty shall be provided by Fisher & Paykel or its Authorized DCS Service Agent during normal business hours.

## HOW LONG DOES THIS LIMITED WARRANTY LAST?

Our liability under this Limited Warranty for the entire product expires ONE YEAR from the date of purchase of the Product by the first consumer. Our liability under this Limited Warranty for the switches and motor (parts only) expires FIVE YEARS from the date of purchase of the Product by the first consumer.

Our liability under any implied warranties, including the implied warranty of merchantability (an unwritten warranty that the Product is fit for ordinary use) also expires ONE YEAR (or such longer period as required by applicable law) from the date of purchase of the Product by the first consumer. Some states do not allow limitations on how long an implied warranty lasts, so this limit on implied warranties may not apply to you.

## THIS WARRANTY DOES NOT COVER:

- A. Service calls that are not related to any defect in the Product. The cost of a service call will be charged if the problem is not found to be a defect of the Product. For example:
1. Correct faulty installation of the Product.
  2. Instruct you how to use the Product.
  3. Replace house fuses, reset circuit breakers, correct house wiring or plumbing, or replace light bulbs.
  4. Correct fault(s) caused by the user.
  5. Change the set-up of the Product.
  6. Unauthorized modifications of the Product.

# WARRANTY

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7. Noise or vibration that is considered normal, for example, drain/fan sounds, regeneration noises or user warning beeps.
  8. Correcting damage caused by pests, for example, rats, cockroaches etc.
- B. Defects caused by factors other than:
1. Normal domestic use or
  2. Use in accordance with the Product's User Guide.
- C. Defects to the Product caused by accident, neglect, misuse, fire, flood or Act of God.
- D. The cost of repairs carried out by non-authorized repairers or the cost of correcting such unauthorized repairs.
- E. Travel Fees and associated charges incurred when the product is installed in a location with limited or restricted access. (i.e. airplane flights, ferry charges, isolated geographic areas).
- F. Normal recommended maintenance as set forth in the Product's User Guide.

If you have an installation problem contact your dealer or installer. You are responsible for providing adequate electrical, exhausting and other connection facilities. We are not responsible for consequential or incidental damages (the cost of repairing or replacing other property damaged if the Product is defective or any of your expenses caused if the Product is defective). Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

## HOW TO GET SERVICE

Please read your User Guide. If you then have any questions about operating the Product, need the name of your local DCS Authorized Service Agent, or believe the Product is defective and wish service under this Limited Warranty, please contact your dealer or call us at:

TOLL FREE 1-888-281 5698 or contact us through our web site: [www.dcsappliances.com](http://www.dcsappliances.com).

You may be required to provide reasonable proof of the date of purchase of the Product before the Product will be serviced under this Limited Warranty.

## COMMERCIAL USE

This warranty applies to appliances used in residential applications; it does not cover their use in commercial situations.

## NO OTHER WARRANTIES

This Limited Warranty is the complete and exclusive agreement between you and Fisher & Paykel regarding any defect in the Product. None of our employees (or our Authorized Service Agents) are authorised to make any addition or modification to this Limited Warranty.

Warrantor: Fisher & Paykel Appliances, Inc.

If you need further help concerning this Limited Warranty, please call us at the above number, or write to:

Fisher & Paykel Appliances, Inc.  
5900 Skylab Road, Huntington Beach, CA 92647

This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.







*A Fisher & Paykel Appliances, Inc. Company*

Fisher & Paykel Appliances, Inc.  
5900 Skylab Road, Huntington Beach, CA 92647  
Customer Care: 888.281.5698  
Fax: 714.372.7003  
[www.dcsappliances.com](http://www.dcsappliances.com)

As product improvement is an ongoing process at DCS, we reserve the right to change specifications or design without notice.

DCS améliore constamment ses produits et se réserve le droit de modifier les spécifications ou la conception de ses produits sans aucun préavis.

Part No. 17493 Rev. C  
Litho in USA 02/2005