

ESSENTIALS

ZEPHYR

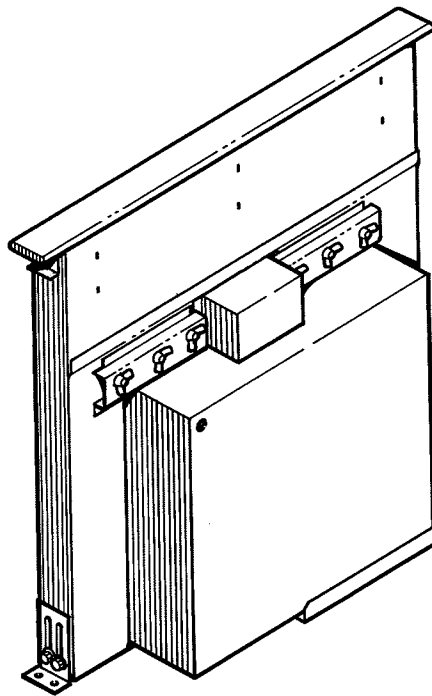
www.zephyronline.com

Use, Care, and Installation Guide

Sorrento

DD1-E30AS

DD1-E36AS



Model number: _____

Serial number: _____

Date of purchase: _____

Sales dealer: _____

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READ AND SAVE THESE INSTRUCTIONS

MODEL	WIDTH	BLOWER
DD1-E30AS	30"	500 cfm
DD1-E36AS	36"	500 cfm



WARNING - To reduce the risk of burns or ignition of clothing by reaching across burners, the downdraft remote control **MUST** be mounted in the countertop - at least 4" from the burners. See "INSTALL COOKTOP" section on page 8.

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 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. Do not install this product with the activating switch directly behind a burner or element. Minimum distance between the switch and the edge of the cooktop should be 4 inches.
9. Loose-fitting or hanging clothing should never be worn when operating this appliance. They may be ignited by burners/elements on cooktop.
10. Children should not be left alone or unattended in the area where this appliance is in use.
11. This unit must be grounded.

TO REDUCE THE RISK OF A RANGE TOP GREASE FIRE:

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

NOTE: Model DDA-0001 Remote Up/Down Control sold separately.

INSTALLER:

Save this manual for Electrical Inspector and Homeowner to use.

WARNING



TO REDUCE THE RISK OF INJURY TO PERSONS IN THE EVENT OF A RANGE TOP GREASE FIRE, OBSERVE THE FOLLOWING^a:

1. **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.**
2. **NEVER PICK UP A FLAMING PAN** - You may be burned.
3. **DO NOT USE WATER**, including wet dishcloths or towels - a violent steam explosion will result.
4. Use an extinguisher **ONLY** if:
 - A. You know you have a Class ABC extinguisher, and you already know how to operate it.
 - B. The fire is small and contained in the area where it started.
 - C. The fire department is being called.
 - D. You can fight the fire with your back to an exit.

^a Based on "Kitchen Firesafety Tips" published by NFPA.

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. Clean filters and grease-laden surfaces frequently.
4. Do not repair or replace any part of this appliance unless specifically recommended in this manual. All other servicing should be done by a qualified technician.
5. Please read specification label on product for further information and requirements.

MODEL	WIDTH	BLOWER
DD1-E30AS	30"	500 cfm
DD1-E36AS	36"	500 cfm

FEATURES

HOUSING:

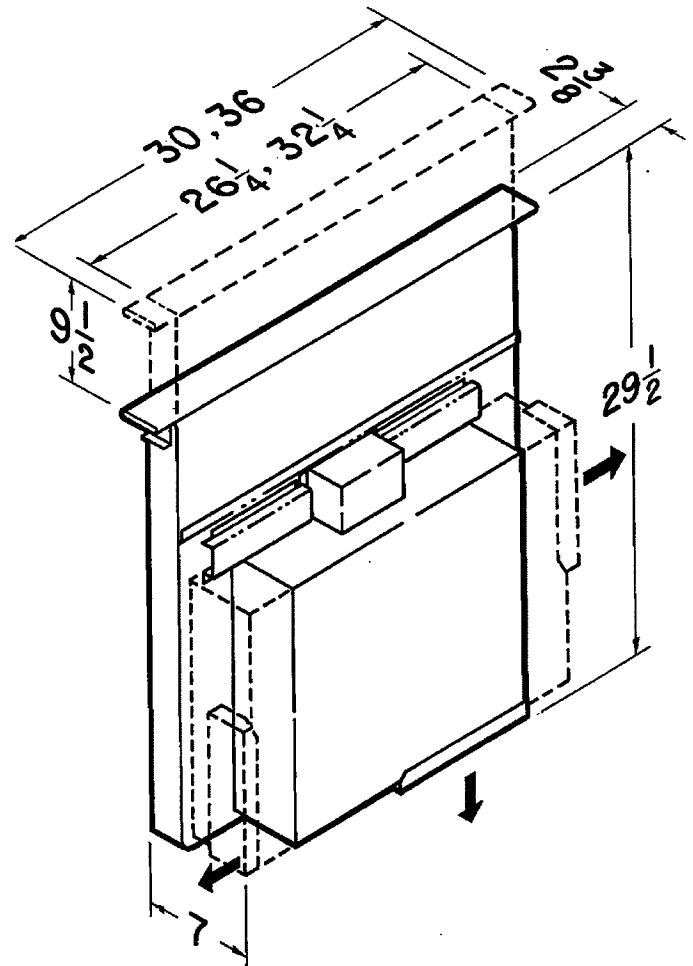
- Rugged steel construction
- Finished with silver paint
- Space-saving - can be used with most cooktops on the market
- 30" or 36" widths - Fits standard-size cabinets

BLOWER:

- Dynamically-balanced 9-1/8" dia. x 2-1/8" centrifugal blower wheel for quiet, efficient performance
- Permanently lubricated, thermally-protected motor
- Neoprene, resilient anti-vibration mounts
- Unit plugs directly into 120 VAC, 60 HZ, grounded outlet
- Uses standard 3-1/4" x 10" duct connector
- 3-position discharge - scroll box moveable to adjust to floor joists

CHIMNEY ASSEMBLY:

- Brushed stainless steel cover - just press button to turn unit "ON"
- Chimney rises 9½" when activated - ideal for large pots and pans
- Stylish, decorative mesh filters - easy to remove and dishwasher-safe
- Stainless steel chimney front and back - makes cleanup quick and easy
- Flush-mounted, infinite rotary speed blower control
- Auto Heat Sensor adjusts speed of blower to HIGH in case of excess heat
- Conveniently located button - press to lower air vent and turn unit "OFF"
- OPTIONAL Remote Control (Model DDA-0001) activates downdraft from alternate location



SPECIFICATIONS

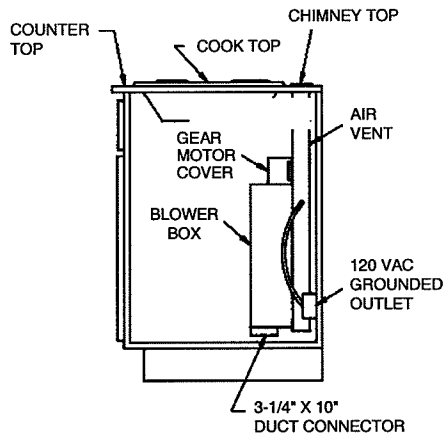
VOLTS	AMPS	CFM	DUCT
120	4.0	500	3-1/4" x 10"



HVI2100 CERTIFIED RATINGS comply with new testing technologies and procedures prescribed by the Home Ventilating Institute, for off-the-shelf products, as they are available to consumers. Product performance is rated at 0.1 in. static pressure, based on tests conducted in a state-of-the-art test laboratory. Sones are a measure of humanly-perceived loudness, based on laboratory measurements.

PLANNING

TYPICAL INSTALLATION



ELECTRICAL SPECIFICATIONS

120 VAC • 60 Hz • 4.0 A

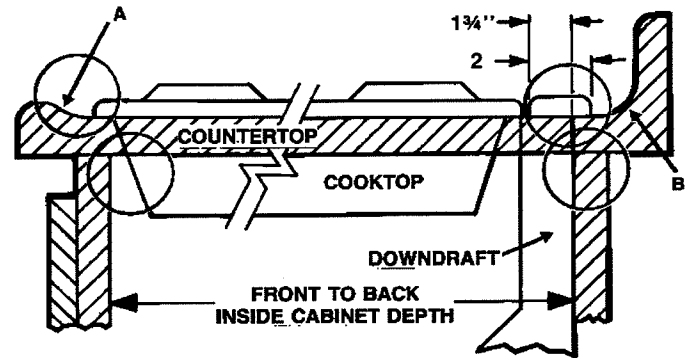
This downdraft blower system is designed to be used to exhaust airborne contaminants when cooking with a variety of gas or electric cooktops. It can be mounted in island, peninsula, or conventional wall locations.

This unit can be easily installed following these basic steps:

- Cut out the countertop opening.
- Mount the unit in the cabinet.
- Connect the ductwork and electrical.
- Install the cooktop.

Note: the high level of air flow of this appliance may effect the gas flame on some types of gas cooktops. This is NORMAL and will cause no harm, but can be corrected by lowering the speed of the blower.

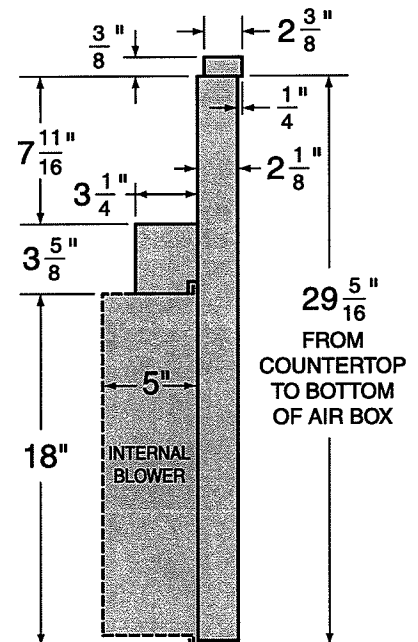
TAKE MEASUREMENTS



1. Refer to the cooktop installation instructions for dimensions of cooktop, countertop cut-out, and cabinet requirements. Model DD1-E30AS will fit in most 30" wide cabinets. Model DD1-E36AS will fit in most 36" wide cabinets. However, it is recommended that oversized cabinets be used for easier installation.
2. Cooktop depth can vary greatly from one to another. This may cause the fit of these two appliances to be rather tight.

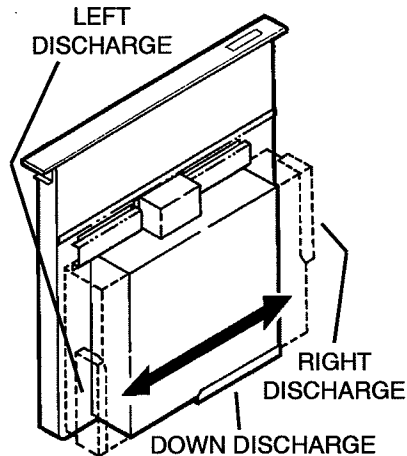
Pay special attention to the areas of potential interference highlighted above. A countertop with (A) a raised lip and/or (B) a backsplash may not allow enough flat countertop for a proper installation. Note that 2" of flat countertop is required behind cooktop and that 1-3/4" is necessary between the back edge of the cooktop and the inside of cabinet back.

SIDE VIEW OF DOWNDRAFT



PLAN THE DUCTWORK

1. The interior down-draft blower system is designed for use with 3-1/4" x 10" ductwork (can be transitioned to 6" round). Three different discharge directions are available with side-to-side adjustment for accurate alignment of ductwork.
2. For best performance: Choose the ducting option which allows the shortest length of ductwork and a minimum number of elbows and transitions. Check location of floor joists, wall studs, electrical wiring or plumbing for possible interference.



6" ROUND ELBOW	3-1/4" X 10" TO 6" RD. TRANSITION	3-1/4" X 10" 90° ELBOW
EQUALS 8 FT. OF STRAIGHT DUCT	EQUALS 2 FT. OF STRAIGHT DUCT	EQUALS 14 FT. OF STRAIGHT DUCT

3. The system will operate most efficiently when the ductwork does not exceed 40 feet of equivalent duct. The chart, above, shows equivalent feet of elbows and transitions. The number of feet of straight duct plus the equivalent feet of transitions and/or elbows to be used should equal 40 feet or less.

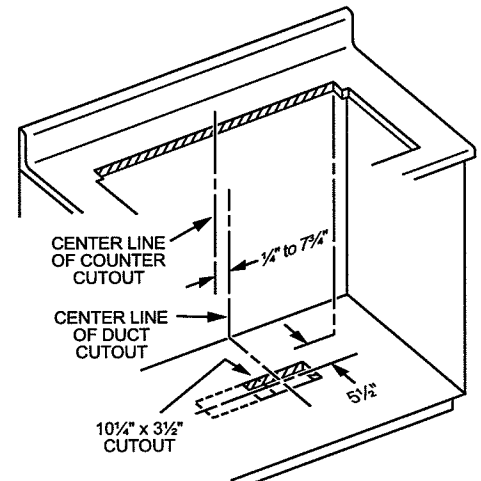
NOTE: The equivalent feet of various roof and wall caps has been taken into consideration. Do not include them in this calculation.

PLAN THE CABINET CUTOUTS

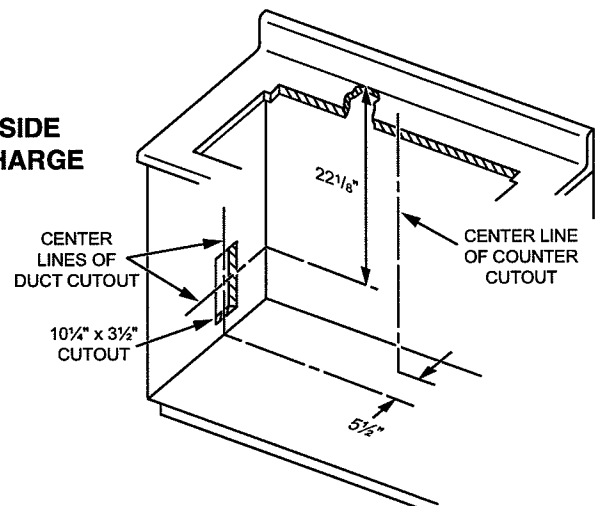


CAUTION: BEFORE CUTTING HOLE IN CABINET FOR DUCTWORK, check for interference with floor joists, wall studs, electrical wiring, or plumbing.

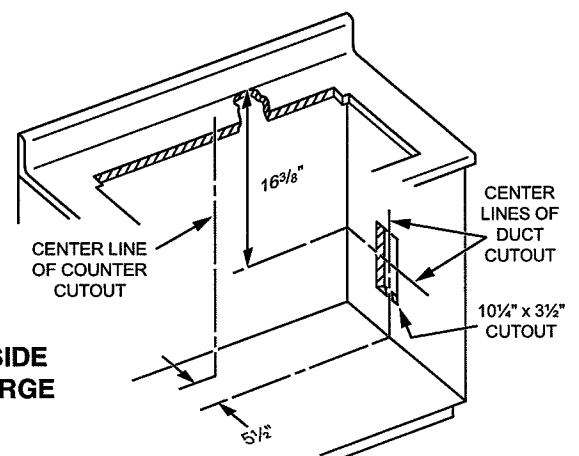
BOTTOM DISCHARGE



LEFT SIDE DISCHARGE



RIGHT SIDE DISCHARGE



PLAN THE WIRING

1. The Downdraft Blower system draws 4 AMPS and requires a 120 VAC, 60 Hz circuit.
2. The unit has a 18 in. long power cord with a 3-pronged plug. Plan to provide a grounded outlet in a location which will allow the unit's power cord to reach.

IMPORTANT - LOCATION OF ELECTRICAL OUTLET:

If Model DD1-E30AS is being installed in a 30" wide cabinet...

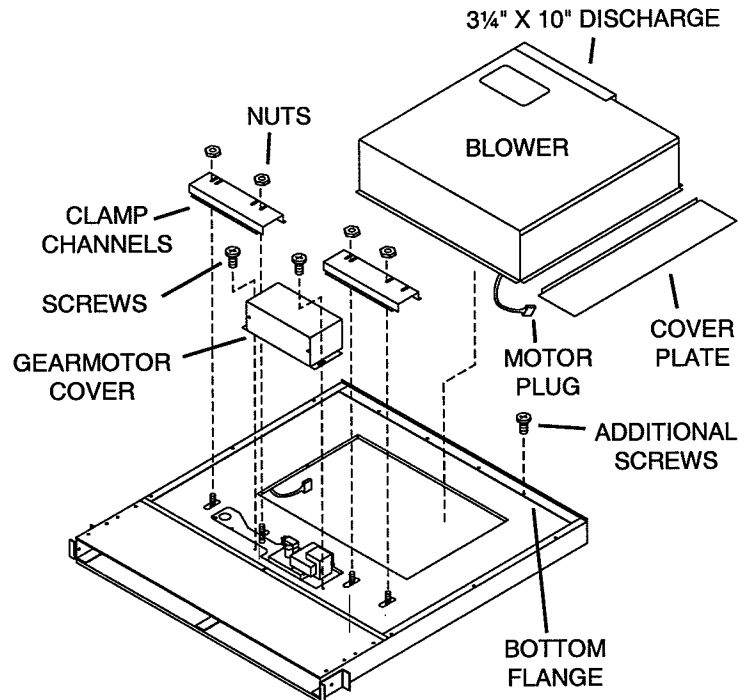
... or Model DD1-E36AS is being installed in a 36" wide cabinet...

... the outlet cannot be located on the back wall of cabinet.

In these cases, the width of the downdraft covers nearly the entire width of the back wall of the cabinet. So you must either:

- mount the electrical box to a side wall or cabinet floor, at least 12 inches from the back wall.
- mount the electrical box to a wall stud behind the cabinet, where it will not be covered by the downdraft. Then provide a clearance hole in the back wall of the cabinet.

PREPARE THE DOWNDRAFT

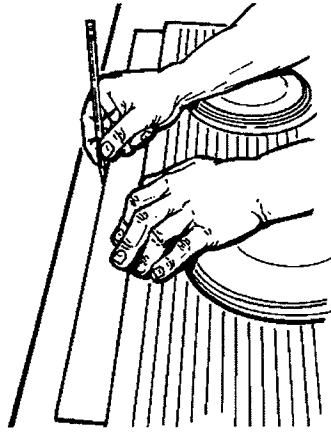


The downdraft is shipped with duct connector pointing toward the bottom of the unit. If you wish to change this orientation, follow the steps below:

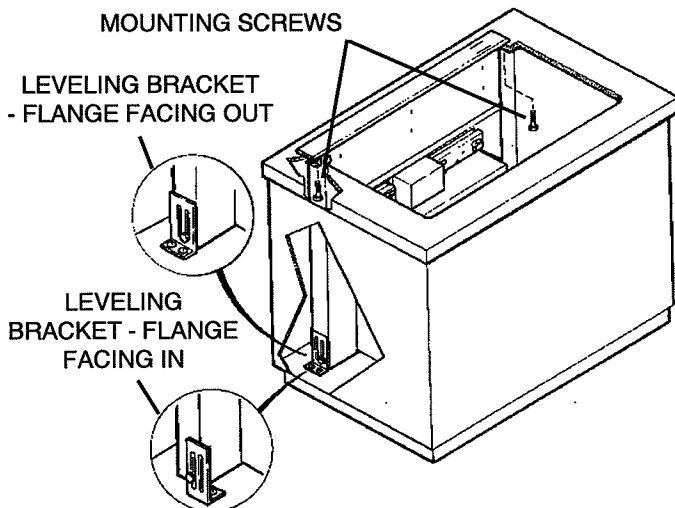
1. Place the downdraft on its back on a table of flat work surface.
2. Remove the **4 nuts** and **2 clamp channels**.
3. Remove **2 screws** and the **gear motor cover**.
4. Carefully position the blower under the **bottom flange** of the downdraft with the **3 1/4" x 10" discharge** pointed in the desired direction.
5. Connect **motor plug**.
6. Replace the gear motor cover and 2 sheet metal screws.
7. Replace the 2 clamp channels and start the 4 nuts, do not tighten.
8. Slide blower left or right to desired position. Use **cover plate** (supplied) to close up any open space.
9. Tighten 4 nuts to secure top of blower. Use **additional screws** (supplied) through bottom flange to secure bottom in blower.

CUT COUNTERTOP OPENING

1. Lay out and cut the cooktop cut-out far enough FORWARD so downdraft will fit behind it.
2. Set cooktop in place and slide it as far forward as possible. Center and square it with edges of countertop.
3. Place the plastic template against the back flange of the cooktop and center it. Trace around template to mark the downdraft opening.
4. Remove cooktop from countertop.
5. Cut downdraft opening. Be careful not to chip edges of countertop.



MOUNT THE UNIT

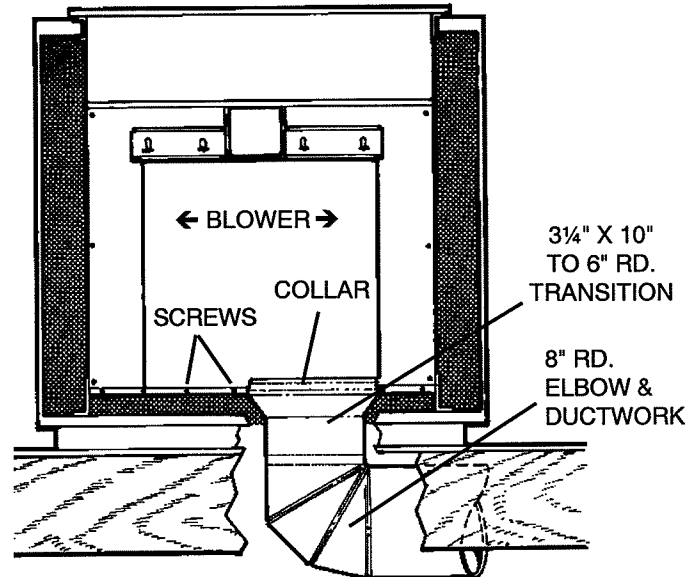


1. Set downdraft into opening. Extend **leveling brackets** to floor of cabinet so downdraft sits straight. (Note: Leveling brackets can be removed and re-attached in other positions. Bottom flange may have to face inward in tight cabinet installations.)
2. Secure the downdraft to the countertop as follows: Hold the downdraft against the back of countertop cut-out and tightening the two **mounting screws** (one on each end of unit) on underside of countertop. Use a wood shim between screw and underside of granite countertops.
3. Screw **leveling brackets** to bottom of cabinet. Tighten screws holding leveling bracket to unit on each side.

INSTALL DUCTWORK



CAUTION: BEFORE CUTTING HOLE IN CABINET FOR DUCTWORK, check for interference with floor joists, wall studs, electrical wiring, or plumbing.



1. Cut hole in cabinet as well as holes in wall or floor as necessary.
2. Mount the roof or wall cap and work back towards the cabinet, attaching all **ductwork, elbows and transitions** as previously planned. Tape all ductwork connections to make them secure and air tight.
3. Connect **ductwork** (and transition, if required) to downdraft. If necessary, **LOOSEN** nuts and **screws** that hold the blower in place, and slide **blower** left or right to meet ductwork. Retighten screws and nuts.

Note: A 3/4" x 10" collar is provided for installers who prefer to rivet the ductwork to the unit. This will allow blower to be removed and replaced easily in service situations without disturbing ductwork.

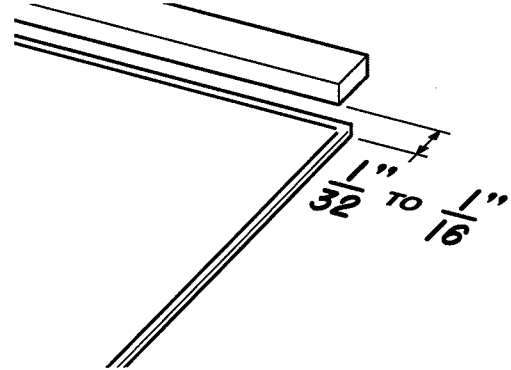
INSTALL ELECTRICAL WIRING



CAUTION: All electrical wiring should be done by a qualified person(s) in accordance with all applicable codes and standards.

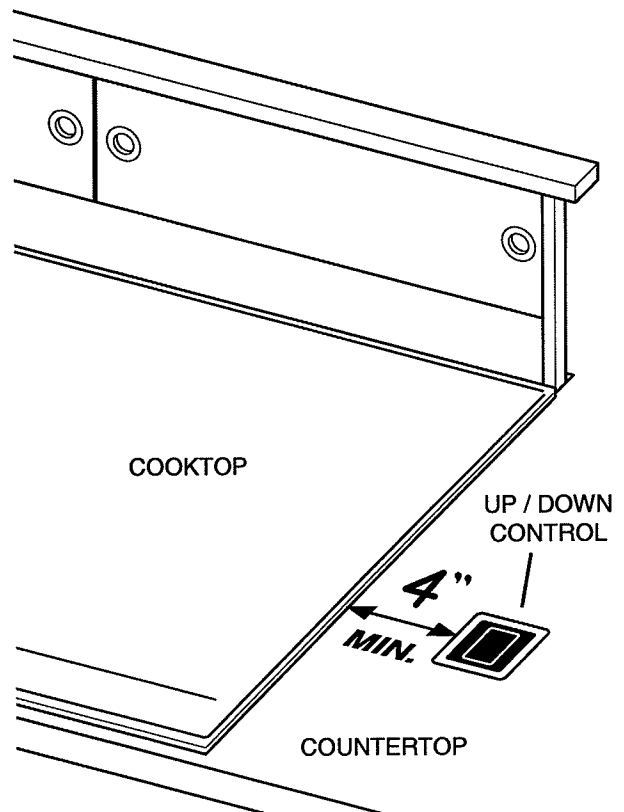
1. Mount a standard wiring box, with 3-pronged receptacle, inside the cabinet. Make sure the downdraft's power cord can easily reach it.
2. Run appropriate power cable into cabinet and connect it to receptacle.
3. Plug the downdraft's power cord into the outlet. Make sure that the power cord is routed away from the heat generated by the cooktop.

INSTALL COOKTOP



1. Align the cooktop with the downdraft and fasten cooktop in place.

Note: Accurate alignment of cooktop and downdraft is necessary to ensure that there is no interference when air vent is raised and lowered. There should be a gap of 1/32" - 1/16" between the back of the cooktop and the front of the downdraft cover.



Note:

The downdraft **up/down control** must be mounted into the **countertop**, at least 4" from the cooktop.

REMOTE UP/DOWN CONTROL INSTALLATION (OPTIONAL)

When to use the Remote UP/DOWN Control

The Remote UP/DOWN Control should be used when your cooktop has a burner that is within 4 inches of the UP/DOWN Button on the downdraft chimney.

The Remote UP/DOWN Control can be used for convenient UP/DOWN operation of the downdraft chimney (even when a burner is more than 4 inches from the UP/DOWN Button of the downdraft chimney).

How to use the Remote UP/DOWN Control

Do not place the remote control where it will interfere with cooking, where hot pans could be set, or where hot liquids could be spilled on the control.

The Remote UP/DOWN Control disables the UP/DOWN function of the UP/DOWN Button on the downdraft chimney.

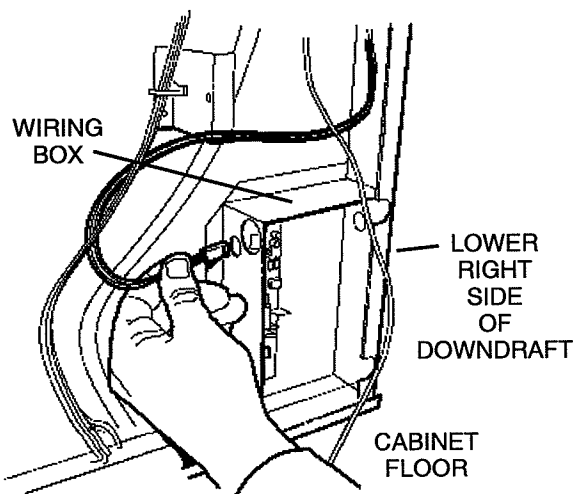
Installation

1. Using the template at right, lay out the 3-hole pattern on the counter top. Mark the centers of the three holes to be drilled.
2. Carefully drill the three holes through the counter top. Be careful not to damage or chip the counter top surface when drilling the holes.
3. Remove the control from the plastic bag. Line the control up with the three holes and position the control so it is parallel with the front of the counter top.
4. Remove the two nylon thumbnuts from the plastic bag and thread onto the two studs on the control from below the counter top. **Hand tighten only.**

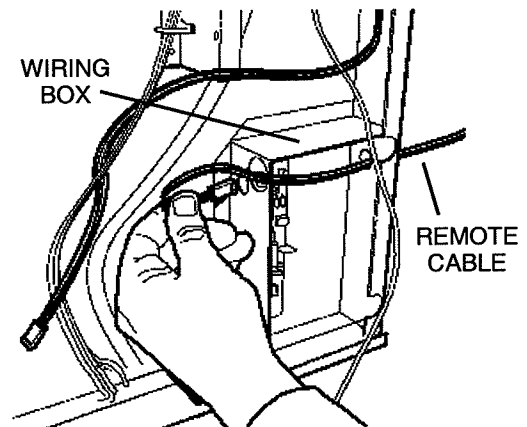
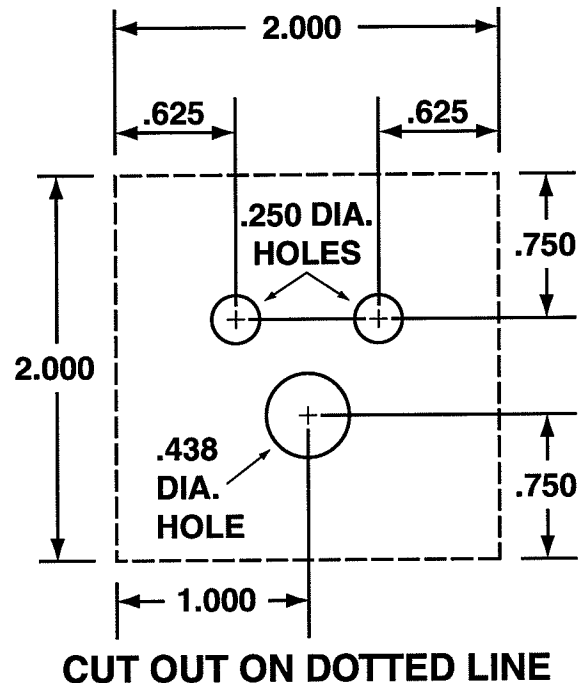


WARNING: To reduce the risk of burns or ignition of clothing by reaching across burners, the remote control must be mounted at least 4" away from any cook top burner.

5. Remove the blower, clamp channels, and gearmotor cover from downdraft (see "Prepare the Downdraft" on page 6). Remove the large panel to expose the downdraft's wiring.



6. At the lower right hand corner of downdraft, unplug the cable from the left side of the wiring box.



7. Remove remote cable from the plastic bag and plug into back of control from below counter top. Route cable through cabinet to lower right hand corner of downdraft and through the clearance holes in the side of downdraft and wiring box. Plug cable into circuit board plug, as shown.
8. Stuff excess cable out of the way, secure the cable so it is not damaged by items stored in the cabinet, and reassemble downdraft.

BACKSIDE OF REMOTE SWITCH TEMPLATE

USE AND CARE



WARNING: Always disconnect electric power supply before cleaning and/or servicing unit.

Always turn the downdraft blower on before you begin cooking to establish an air flow in the kitchen. Let the blower run for a few minutes to clean the air after you turn the cooktop off. This will keep the whole kitchen cleaner and brighter. The activating switch is pressed and the air vent rises.

Cleaning

Use a mild detergent suitable for painted surfaces. DO NOT USE ABRASIVE CLOTH, STEEL WOOL PADS, OR SCOURING POWDERS. Vacuum blower to clean. Do not immerse blower in water.

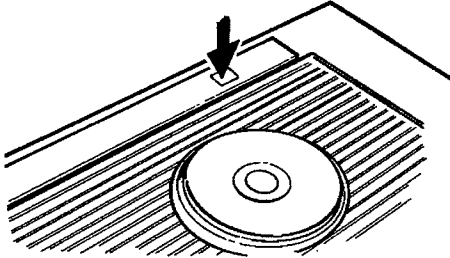
Wash the 2 aluminum/stainless steel grease filters in a mild detergent solution or a dishwasher. Remove them from the air vent by grasping the tab at the top of each filter.

Servicing

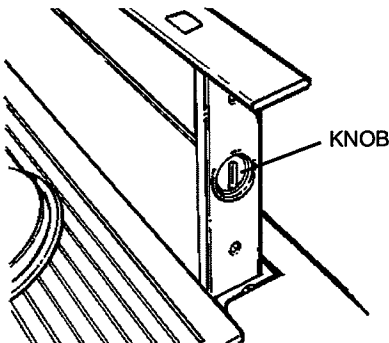
It may be necessary to remove the downdraft blower system from the cabinet in order to service components such as the blower motor or air vent mechanism.

Disconnect power to the cooktop and remove it first. Reverse the steps under "MOUNT THE UNIT" to remove the downdraft from the cabinet.

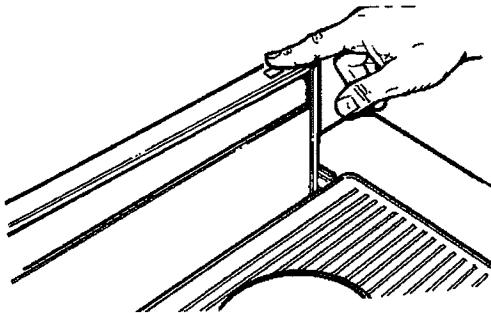
OPERATION



Turn the downdraft blower ON by pressing down on the activating switch. The air vent will rise.



The blower can be turned ON or OFF and its speed can be adjusted with the recessed knob on the right side of the air vent.



Turn the downdraft blower OFF by pressing the activating switch again. The air vent will go down and the blower will shut OFF.

Note: For most convenient operation, set the blower to your favorite speed. The blower will come on to this speed whenever the activating switch is pressed and the air vent rises.

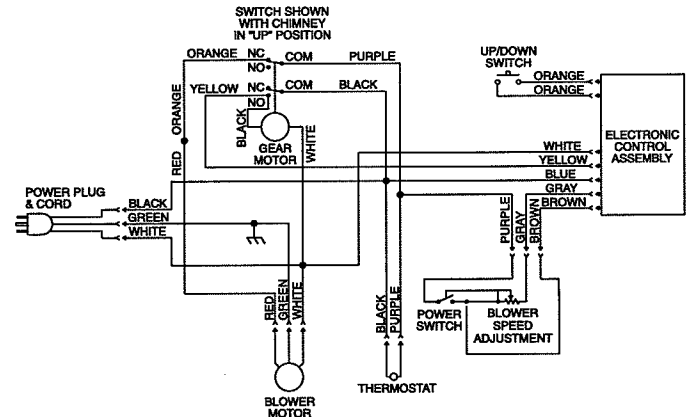
Auto Heat Sensor

When chimney is UP and blower is ON (at any speed) or OFF:

If the exhaust temperature becomes higher than expected, the Heat Sentry mode will activate and increase the blower speed to HIGH.

Lowering the chimney will turn blower OFF - even if Heat Sentry is active.

WIRING DIAGRAM

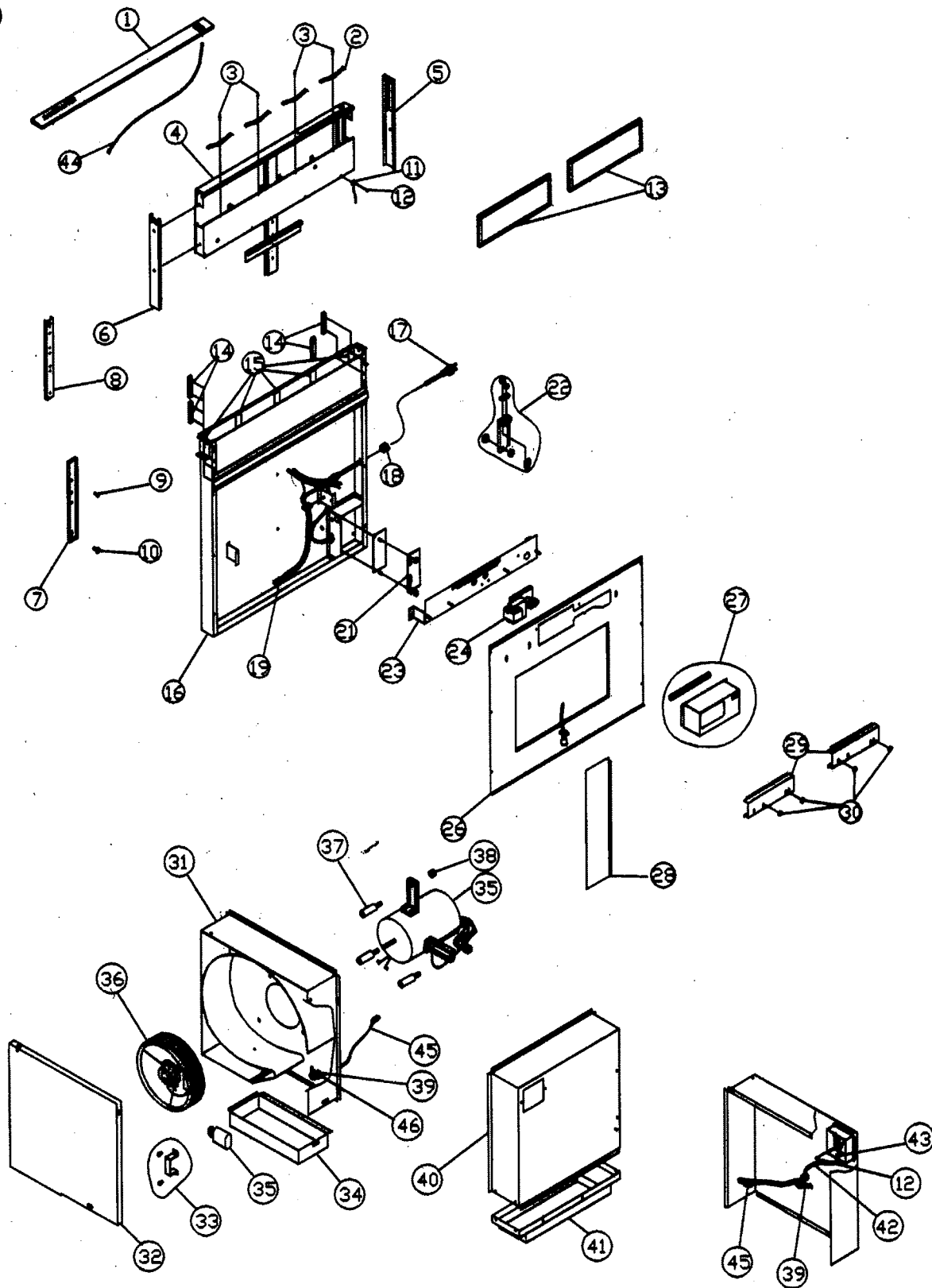


SERVICE PARTS

Sorrento

DD1-E30AS

DD1-E36AS



SERVICE PARTS

Sorrento

DD1-E30AS

DD1-E36AS

Ref #	Part #	Description
1	56210030	Top Cover (30")
1	56210031	Top Cover (36")
2	54140052	Filter Spring
4	50500020	Chimney Assembly (30")
4	50500021	Chimney Assembly (36")
5	50160008	End Cap Right
6	50160009	End Cap Left
7	54140053	Chimney Slide Bracket
8	54140054	Airbox Slide Bracket
9	01100001	Screw, 8-32 x .375
10	01100002	Screw, 8-32 x .500
11	11060001	Ground Wire
12	01110001	Screw, 10-32 x .500
13	50200028	Filter, Metal Mesh (30")
13	50200029	Filter, Metal Mesh (36")
14	54230001	Spacer
15	54190018	Plate, Slide Strip
16	50500022	Airbox Assembly (30")
16	50500023	Airbox Assembly (36")
17	11030039	Cable Set
18	00100018	Strain Relief Bushing
19	11030040	Wire Harness
20	11000030	Switch Assembly
21	11010036	Control Board
22	54260002	Crank Assembly
23	54140055	Gear Motor Bracket
24	12130021	Gear Motor Assembly (30")
24	12130022	Gear Motor Assembly (36")
26	56200059	Front Airbox, Bottom (30")
26	56200060	Front Airbox, Bottom (36")
27	56210032	Gear Motor Cover (30")
27	56210033	Gear Motor Cover (36")
28	56210034	Airbox Opening Cover
29	54140056	Airbox Bracket
30	03050001	Whiz Nut, 10-24
31	56100018	Housing, Motor Assembly

32	56210035	Cover, Motor Housing
33	54140057	Capacitor Bracket
34	54050064	Collar, Motor Assembly Housing
35	12120056	Motor w/Capacitor
36	54250020	Blower Wheel
37	50410008	Motor Mount Isolator
38	03050002	Whiz Nut, 1/4 - 20
39	11050004	Thermostat
40	54190019	Adaptor Plate
41	54190020	Outlet Plate
42	11030041	Wire Harness, Adaptor Plate
43	00100019	Strain Relief Bushing, Adaptor Plate
44	11030042	Up/Down Button Harness
45	11030043	Thermostat Wire Harness
46	54140058	Thermostat Mounting Bracket

FEB08.0101

ZEPHYR

Limited Warranty

STAPLE YOUR RECEIPT HERE
Proof of the original purchase
date is needed to obtain
service under warranty

TO OBTAIN SERVICE UNDER WARRANTY OR FOR ANY SERVICE RELATED QUESTIONS, please call:
1-888-880-8368

Zephyr Corporation (referred to herein as "we" or "us") warrants to the original consumer purchaser (referred to herein as "you" or "your") of Zephyr products (the "Products") that such Products will be free from defects in materials or workmanship as follows:

Two Year Limited Warranty for Parts: For two years from the date of your original purchase of the Products, we will provide, free of charge, Products or parts to replace those that failed due to manufacturing defects. We may choose, in our sole discretion, to repair or replace parts before we elect to replace the Products.

One Year Limited Warranty for Labor: For one year from the date of your original purchase of the Products, we will provide, free of charge, the labor cost associated with repairing the Products or parts to replace those that failed due to manufacturing defects. After the first year from the date of your original purchase, you are responsible for all labor costs associated with this warranty.

Warranty Exclusions: This warranty covers only repair or replacement, at our option, of defective Products or parts and does not cover any other costs related to the Products including but not limited to: (a) normal maintenance and service required for the Products and consumable parts such as light bulbs, metal and carbon filters and fuses; (b) any Products or parts which have been subject to freight damage, misuse, negligence, accident, faulty installation or installation contrary to recommended installation instructions, improper maintenance or repair (other than by us); (c) commercial use of the Products or use otherwise inconsistent with its intended purpose; (d) natural wear of the finish of the Products or wear caused by improper maintenance, use of corrosive and abrasive cleaning products, pads, and oven cleaner products; (e) chips, dents or cracks caused by abuse or misuse of the Products; (f) service trips to your home to teach you how to use the Products; or (g) damage to the Products caused by accident, fire, floods or act of God. If you are outside our service area, additional charges may apply for shipping costs for warranty repair at our designated service locations and for the travel cost to have a service technician come to your home to repair, remove or reinstall the Products. After the first year from the date of your original purchase, you are also responsible for all labor costs associated with this warranty.

Limitations of Warranty. OUR OBLIGATION TO REPAIR OR REPLACE, AT OUR OPTION, SHALL BE YOUR SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY. WE SHALL NOT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THE PRODUCTS. THE EXPRESS WARRANTIES IN THE PRECEDING SECTION ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES. WE HEREBY DISCLAIM AND EXCLUDE ALL OTHER EXPRESS WARRANTIES FOR THE PRODUCTS, AND DISCLAIM AND EXCLUDE ALL WARRANTIES IMPLIED BY LAW, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states or provinces do not allow limitations on the duration of an implied warranty or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. To the extent that applicable law prohibits the exclusion of implied warranties, the duration of any applicable implied warranty is limited to the same two-year period described above. Any oral or written description of the Products is for the sole purpose of identifying the Products and shall not be construed as an express warranty. Prior to using, implementing or permitting use of the Products, you shall determine the suitability of the Products for the intended use, and you shall assume all risk and liability whatsoever in connection with such determination. We reserve the right to use functionally equivalent refurbished or reconditioned parts or Products as warranty replacements or as part of warranty service. This warranty is not transferable from the original purchaser and applies in the United States and Canada.

To Obtain Service Under Limited Warranty: To qualify for warranty service, you must: (a) notify us at the address or telephone number stated below within 60 days of the discovery of the defect; (b) give the model number and part identification number and serial number; and (c) describe the nature of any defect in the Product or part. At the time of the request for warranty service, you must present evidence of your proof of purchase and proof of the original purchase date. If we determine that the warranty exclusions listed above apply or if you fail to provide the necessary documentation to obtain service, you will be responsible for all shipping, travel, labor and other costs related to the services.

Zephyr Corporation, Service Department, 395 Mendell Street, San Francisco, CA 94124 1-888-880-8368