

# Use, Care, and Installation Guide

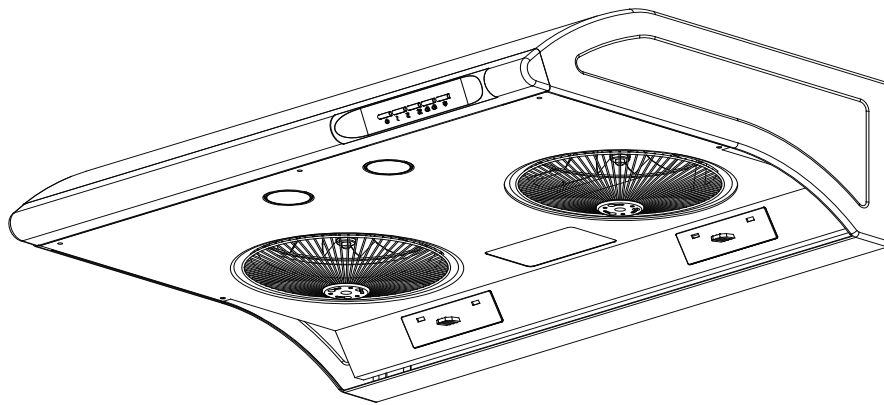
## Typhoon

AK2100AS, B,Q,W

AK2136AS, B,Q,W

AK2142AS

AK2148AS



Model number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Sales Dealer: \_\_\_\_\_

AUG10.0601 © Zephyr Corporation





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**READ AND SAVE THESE INSTRUCTIONS**

**WARNING**

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT USE THIS FAN WITH ANY SOLID-STATE CONTROL DEVICE.

**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 servicing or cleaning unit, switch power off at service panel and lock panel 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.

**CAUTION**

For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors. Take care when using cleaning agents or detergents. Suitable for use in household cooking area.

**WARNING**

TO REDUCE THE RISK OF 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 flaming food
- 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.
- e. Keep fan, filters and grease laden surfaces clean.
- f. Use high setting on hood only when necessary.
- g. Don't leave hood unattended when cooking.
- h. Always use cookware and utensils appropriate for the type of and amount of food being prepared.

**WARNING**

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

- a. 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.
- b. NEVER PICK UP A FLAMING PAN – You may be burned.
- c. DO NOT USE WATER, including wet dishcloths or towels – a violent steam explosion will result.
- d. 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

**WARNING**

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

- a. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards. Including fire-rated construction.
- b. Sufficient air is needed for power combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back-drafting. 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.
- c. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
- d. Ducted fans must always vent to the outdoors.
- e. NEVER place a switch where it can be reached from a tub or shower.
- f. Make sure the power is off before installing, wiring or maintenancing.

**WARNING**

TO REDUCE THE RISK OF FIRE, USE ONLY METAL DUCTWORK.  
NOT FOR USE IN OUTDOOR COOKING ENVIRONMENTS.

**CAUTION**

To reduce risk of fire and to properly exhaust air outside - Do not vent exhaust air into spaces within walls, ceilings, attics, crawl spaces or garages.

**OPERATION**

Always leave safety grilles and filters in place. Without these components, operating blowers could catch onto hair, fingers and loose clothing.

The manufacturer declines all responsibility in the event of failure to observe the instructions given here for installation, maintenance and suitable use of the product. The manufacturer further declines all responsibility for injury due to negligence and the warranty of the unit automatically expires due to improper maintenance.

**\*NOTE: Please check [www.zephyronline.com](http://www.zephyronline.com) for revisions before doing any custom work.**

**ELECTRICAL REQUIREMENTS**

**Important:**

Observe all governing codes and ordinances.

It is the customer's responsibility:

- To contact a qualified electrical installer.
- To assure that the electrical installation is adequate and in conformance with National Electrical Code, ANSI/NFPA 70 latest edition\* or CSA standards C22.1-94, Canadian Electrical Code, Part 1 and C22.2 No.0-M91 - latest edition\*\* and all local codes and ordinances.

If codes permit and a separate ground wire is used, it is recommended that a qualified electrician determine that the ground path is adequate.

Do not ground to a gas pipe.

Check with a qualified electrician if you are not sure the range hood is properly grounded.

Do not have a fuse in the neutral or ground circuit.

\*National Fire Protection Association Batterymarch Park, Quincy, Massachusetts 02269

\*\* CSA International 8501 East Pleasant Valley Road, Cleveland, Ohio 44131-5575

This appliance requires a 120V 60Hz electrical supply and connected to an individual properly grounded branch circuit protected by a 15 or 20 ampere circuit breaker or time delay fuse. Wiring must be 2 wire with ground. Please also refer to Electrical Diagram on product.

A cable locking connector (not supplied) might also be required by local codes. Check with local requirements, purchase and install appropriate connector if necessary.

List of Materials

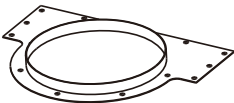
MODELS: AK2100A, AK2136A, AK2142A, AK2148A

PARTS SUPPLIED

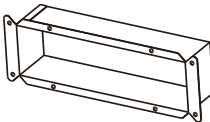
- 1 - Hood body
- 2 - Safety grilles
- 2 - Halogen light bulbs (35W, pre-installed)
- 1 - Hardware package

INCLUDED HARDWARE

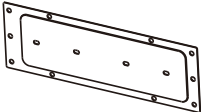
7" Round transition adapter  
(pre-installed on top of hood)



3-1/4"x10" rectangular starting collar



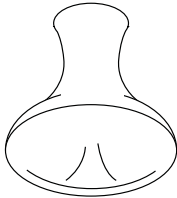
3-1/4"x10" rectangular cover plate  
(pre-installed on back of hood)



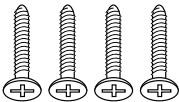
3-1/4"x10" rectangular vertical transition adapter



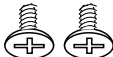
Suction Cup (1)



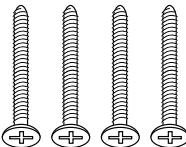
M4 x 1" (4)



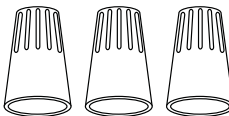
Safety Grille  
Screws (2)



M4 x 1-1/2" (4)




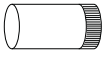
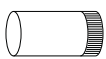
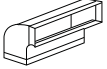
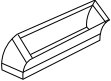
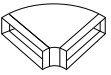
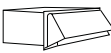
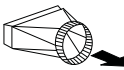
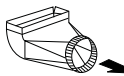


Wire Caps (3)

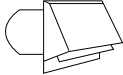


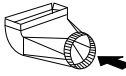


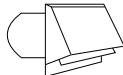

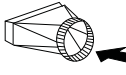
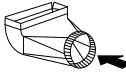


PARTS NOT SUPPLIED

- Ducting, conduit and all installation tools
- Backdraft damper
- Philips head screwdriver with minimum 8" long shaft (required to install AK2100)
- Cable lock (if required by local codes)

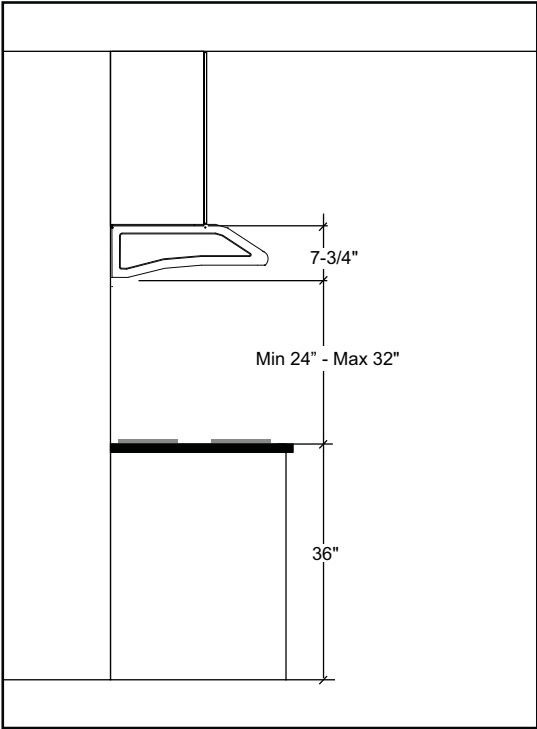
# Installation – Ductwork Calculation Sheet

Duct pieces	Equivalent number length x used =	Total
 3-1/4" x 10" Rect., straight	1 Ft. x ( ) =	Ft.
 6" Round, straight	1 Ft. x ( ) =	Ft.
 7"-10" Round, straight	1 Ft. x ( ) =	Ft.
 3-1/4" x 10" Rect. 90° elbow	15 Ft. x ( ) =	Ft.
 3-1/4" x 10" Rect. 45° elbow	9 Ft. x ( ) =	Ft.
 3-1/4" x 10" Rect. 90° flat elbow	24 Ft. x ( ) =	Ft.
 3-1/4" x 10" Rect. wall cap with damper	30 Ft. x ( ) =	Ft.
 3-1/4" x 10" Rect. to 6" round transition	5 Ft. x ( ) =	Ft.
 3-1/4" x 10" Rect. to 6" round transition 90° elbow	20 Ft. x ( ) =	Ft.
 6" Round, 90° elbow	15 Ft. x ( ) =	Ft.
 6" Round, 45° elbow	9 Ft. x ( ) =	Ft.
Subtotal column 1 =		Ft.

Duct pieces	Equivalent number length x used =	Total
 6" Round wall cap with damper	30 Ft. x ( ) =	Ft.
 6" Round, roof cap	30 Ft. x ( ) =	Ft.
 6" round to 3-1/4" x 10" rect. transition	1 Ft. x ( ) =	Ft.
 6" round to 3-1/4" x 10" rect. transition 90° elbow	16 Ft. x ( ) =	Ft.
 7" - 10" Round, 90° elbow	15 Ft. x ( ) =	Ft.
 7" - 10" Round, 45° elbow	9 Ft. x ( ) =	Ft.
 7" - 10" Round wall cap with damper	30 Ft. x ( ) =	Ft.
 7" - 10" Round, roof cap	30 Ft. x ( ) =	Ft.
 7" round to 3 1/4" x 10" rect. transition	8 Ft. x ( ) =	Ft.
 7" round to 3-1/4" x 10" rect. transition 90° elbow	23 Ft. x ( ) =	Ft.
Subtotal column 2 =		Ft.
Subtotal column 1 =		Ft.
Total ductwork =		Ft.

**Maximum Duct Length:** For satisfactory air movement, the total duct length should not exceed 100 equivalent feet.

Installation – Mounting Height & Clearance



Minimum mounting height between range top to hood bottom should be no less than 24".

Maximum mounting height should be no higher than 32".

It is important to install the hood at the proper mounting height. Hoods mounted too low could result in heat damage and fire hazard; while hoods mounted too high will be hard to reach and will lose its performance and efficiency.

If available, also refer range manufacturer's height clearance requirements and recommended hood mounting height above range.

**Vertical Ducting:**

7" round minimum or  
3-1/4" x 10" rectangular minimum

**Horizontal Ducting:**

3-1/4"x10" rectangular minimum

**DUCTING**

A minimum of 7" round or 3-1/4" x 10" rectangular duct must be used to maintain maximum air flow efficiency.

Always use rigid type metal ducts only. Flexible ducts could restrict air flow by up to 50%.

Also use calculation (on page 7) to compute total available duct run when using elbows, transitions and caps.

ALWAYS, when possible, reduce the number or transitions and turns. If long duct run is required, increase duct size from 7" to 8".

If turns or transitions are required; install as far away from hood duct output and as far apart, between the two as possible.

**DAMAGE-SHIPMENT / INSTALLATION:**

- Please fully inspect unit for damage before installation.
- If the unit is damaged in shipment, return the unit to the store in which it was bought for repair or replacement.
- If the unit is damaged by the customer, repair or replacement is the responsibility of the customer.
- If the unit is damaged by the installer (if other than the customer), repair or replacement must be made by arrangement between customer and installer.



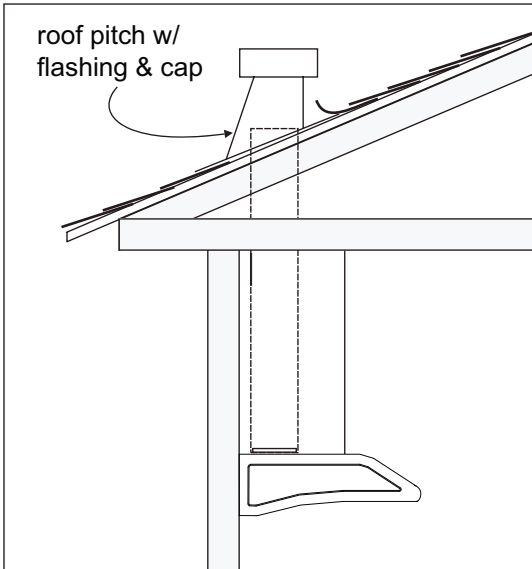
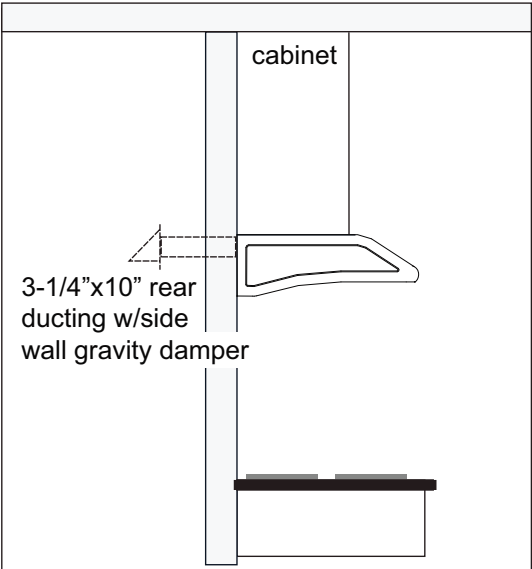
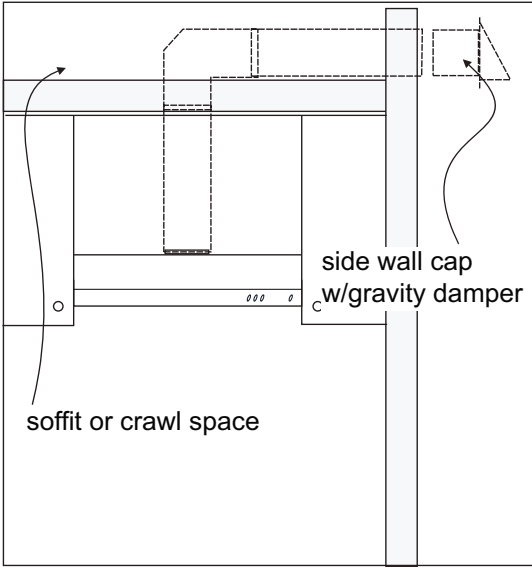
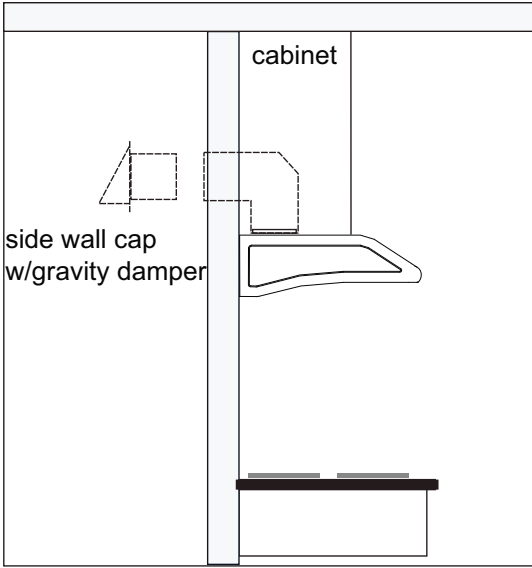
**WARNING FIRE HAZARD**

NEVER exhaust air or terminate duct work into spaces between walls, crawl spaces, ceiling, attics or garages. All exhaust must be ducted to the outside.

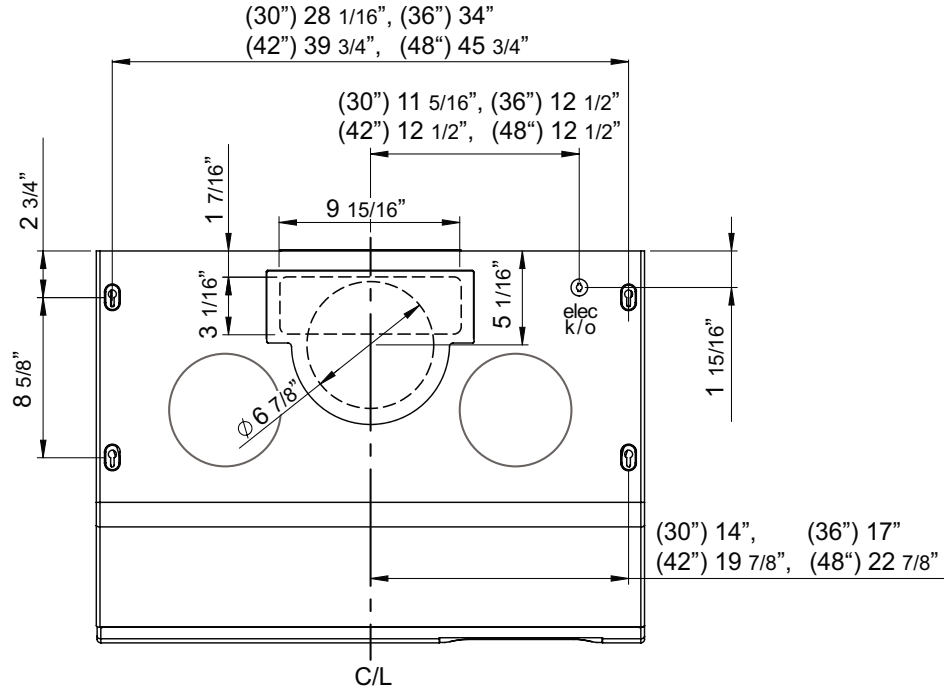
Use metal ductwork only.

Fasten all connections with sheet metal screws and tape all joints with certified Silver Tape or Duct Tape.

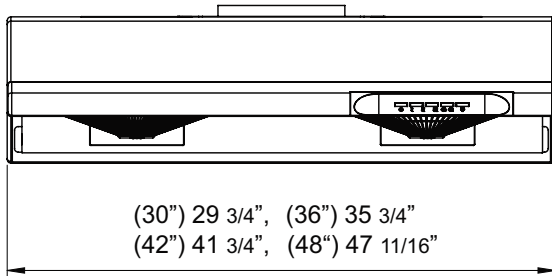
**Some Ducting Options**



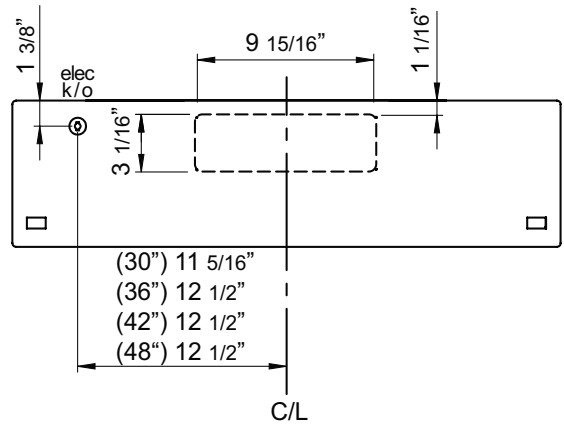
Installation – Specifications



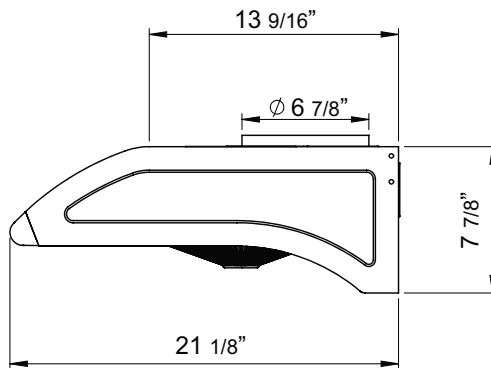
TOP



FRONT



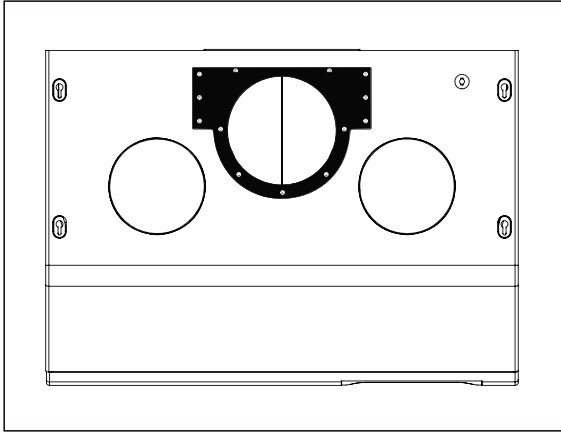
BACK



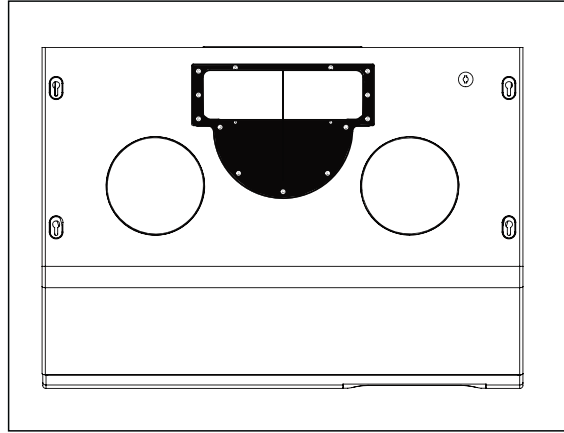
SIDE

By default the Typhoon is pre-configured for 7" round vertical ducting.

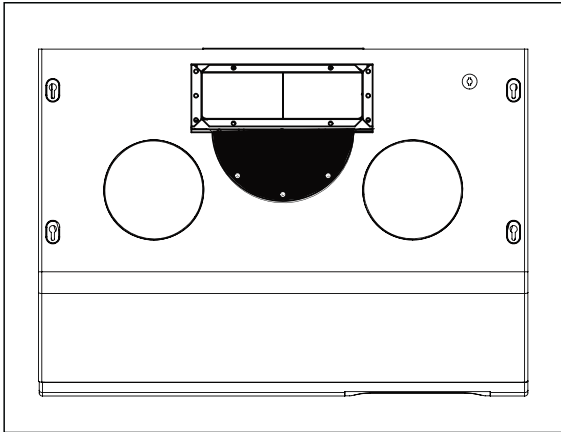
### 3-1/4"x10" Rectangular Vertical Ducting



1. Using a Philips-head screwdriver remove the screws and 7" round vertical transition adapter from top of hood body.



2. Replace 7" round vertical transition adapter with rectangular transition adapter. Do not secure to hood body yet.

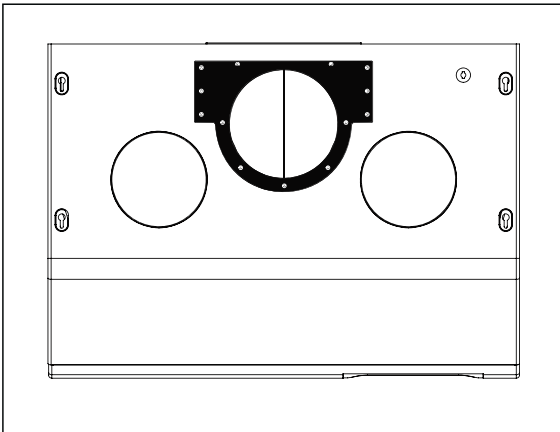


3. Place 3-1/4"x10" rectangular collar on top of rectangular transition adapter. Secure rectangular adapter and rectangular collar to hood body using the previously removed screws from step 1.

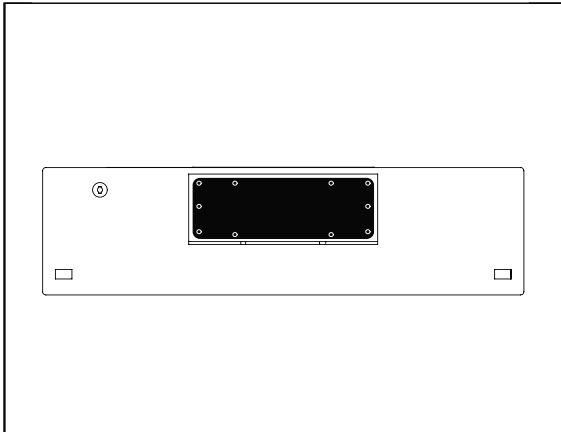
**Installation – 3-1/4"x10" rectangular ducting preparation**

By default the Typhoon is pre-configured for 7" round vertical ducting.

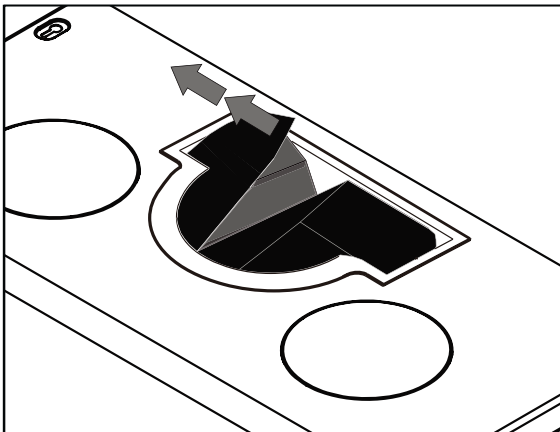
**3-1/4"x10" Rectangular Horizontal Ducting**



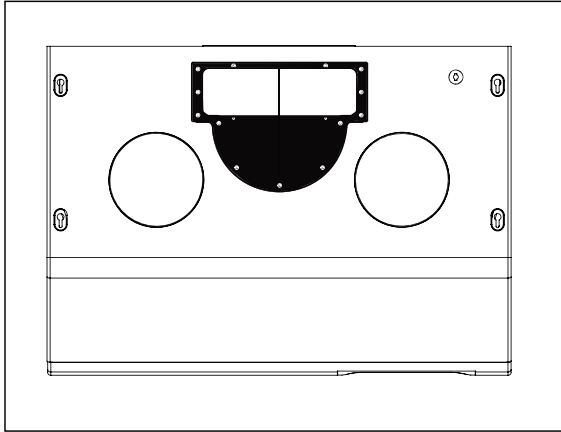
1. Using a Philips-head screwdriver remove the screws and 7" round vertical transition adapter from the top of the hood.



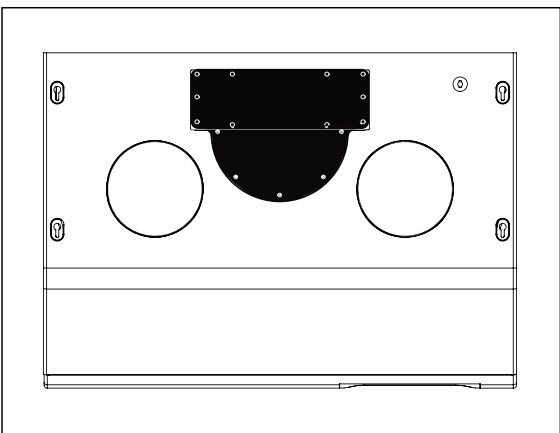
2. Using a Philips-head screwdriver, remove the screws and 3-1/4"x10" rectangular cover plate from back of hood.



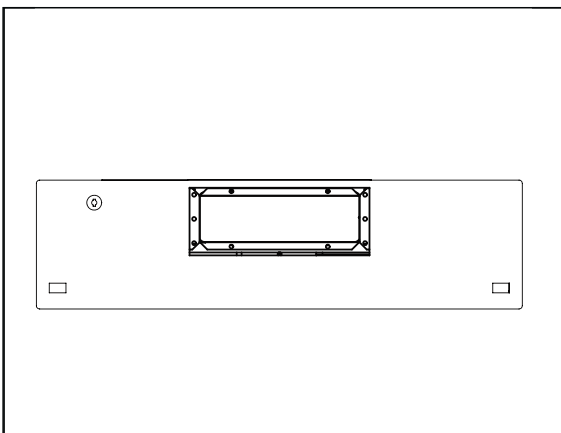
3. Remove the two plastic air diverter blocks. The blocks are located in the hood and can be accessed from the top when the 7" round transition adapter is removed.



4. Replace 7" round vertical transition adapter with rectangular transition adapter. Do not secure to hood body yet.



5. Place 3-1/4"x10" rectangular cover plate over the rectangular opening on top of hood from step 4. Secure rectangular transition adapter and cover plate to hood body using the previously removed screws from step 1.



6. Place 3-1/4"x10" rectangular collar on back of hood and secure using the screws that previously secured the rectangular cover plate.

**ELECTRICAL  
WARNING**

All Electrical work must be performed by qualified electrician or person with similar technical knowledge and background.

For personal safety, remove house fuse or open circuit breaker before beginning installation. Do not use extension cord or adapter plug with this appliance.

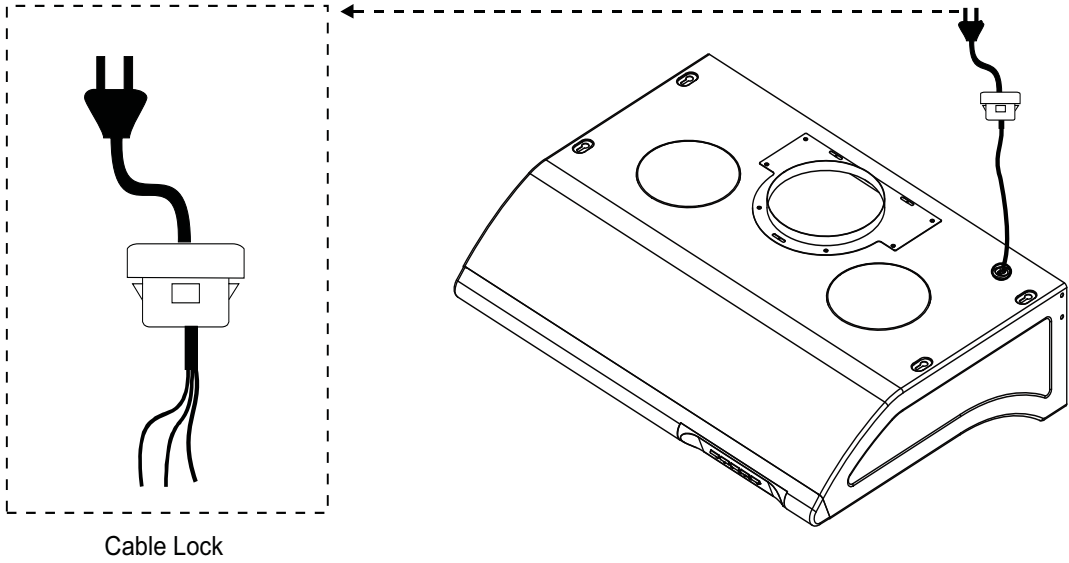
Follow national electrical codes or prevailing local codes and ordinances.

**Electrical Supply:**

This appliance requires a 120V 60Hz electrical supply, and connected to an individual, properly grounded branch circuit, protected by a 15 or 20 ampere circuit breaker or time delay fuse. Wiring must be 2 wire w/ ground. Please refer to Electrical Diagram labeled on product.

**Cable Lock:**

A cable locking connector (not supplied) might also be required by local codes. Check with local requirements and codes, purchase and install appropriate connector if necessary.



## Installation – Mounting the Range Hood

**Hood is designed for installation under a kitchen cabinet. See Fig. 1 for details.**

1. Prepare duct location on hood (vertical or horizontal) Refer to Pages 11-12 for ducting options.
2. Measure and cut out duct and electrical openings in cabinet or wall to match up with the hood. Ducting and electrical dimensions can be found on Page 10. **Note:** Make sure duct opening is large enough to apply aluminum duct tape.
3. Reinforce cabinet bottom with wood strips if additional strengthening is required or if cabinets are framed.
4. Remove bottom panel from hood using a Philips head screwdriver to remove each of the (5) screws. Also remove lighting harness by pressing in on the clip to release the lights from the internal wiring.
5. Install (4) wood screws to cabinet bottom by following the installation screw hole dimensions on Page 10. These screws will be used to secure the hood to the cabinet.
6. Lift hood onto screws located on cabinet bottom and lock into place. Make sure all (4) key-holes cover the screws. Tighten each screw to secure hood to cabinet. **Note:** For 30" models you will need an 8" - 10" long shaft for your screwdriver/drill to reach the front screws.
7. Install electrical.
8. Install duct work and seal with aluminum duct tape.
9. Power up hood and check for leaks around duct tape and test all functions.
10. Reinstall bottom panel and re-connect lighting harness.
11. Slide residue cups into their openings on the bottom of the hood. Install safety grilles over each blower opening and secure with the two safety grille screws.

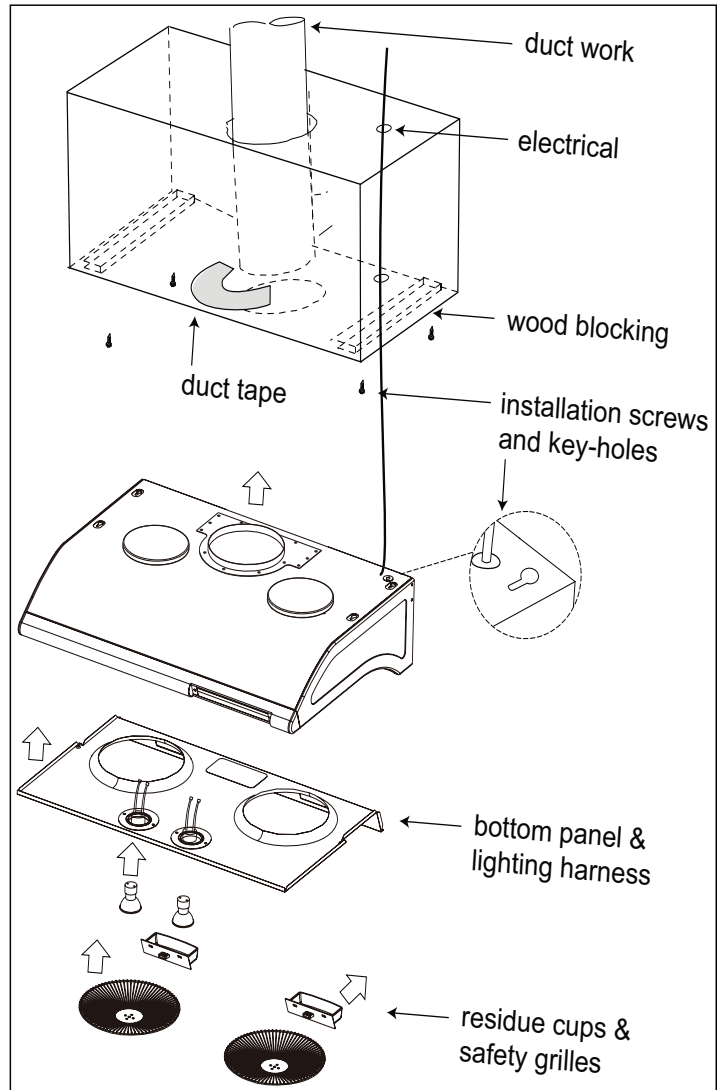
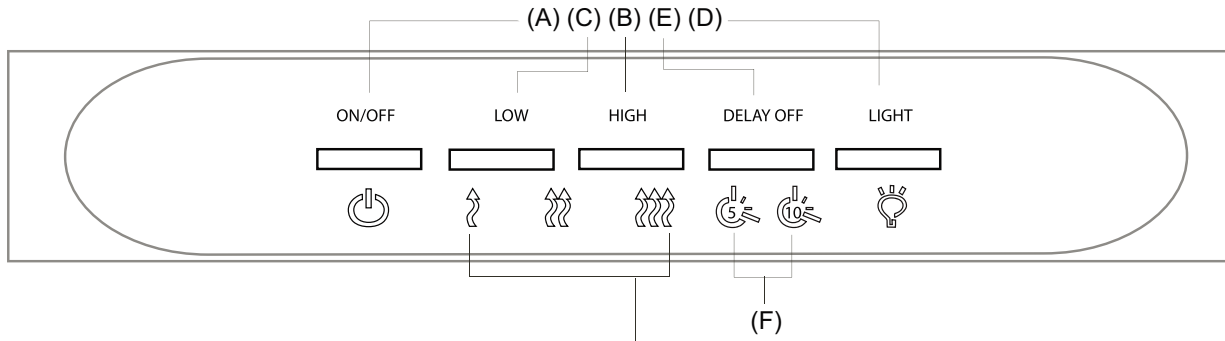


Fig 1



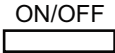
- (G) Indicator: indicates level of blower speed from 1 to 6
- Blower Speed 1 (LOW): Indicator flashing
- Blower Speed 2: Indicator lit
- Blower Speed 3: Indicator flashing
- Blower Speed 4: Indicator lit
- Blower Speed 5: Indicator flashing
- Blower Speed 6 (HIGH): Indicator lit

- (A) Power hood on/off
- (B) Adjust to higher blower speed (1 to 6)
- (C) Adjust to lower blower speed (6 to 1)
- (D) Power lights on/off and dim (night light)
- (E) Timer that powers off hood in 5 or 10 minutes
- (F) Indicates 5 or 10 minute delay when lit

Controls – Electronic Touch

**Blower Controls**

Power on the blowers by pressing “ON/OFF” once.



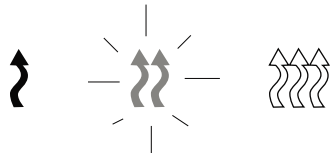
Adjust blower speed (1 - 6) by pressing “HIGH” or “LOW”.



**Speed Indicator**

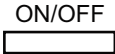
The speed indicator will show the speed the blowers are operating at as follows:

- Blower Speed 1 (LOW): Indicator flashing
- Blower Speed 2: Indicator lit
- Blower Speed 3: Indicator flashing
- Blower Speed 4: Indicator lit
- Blower Speed 5: Indicator flashing
- Blower Speed 6 (HIGH): Indicator lit



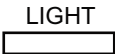
**Note:** The controls are equipped with a blower speed setting memory module. When powering on the blowers, the speed level will start at the speed setting last memorized.

Power off blowers by pressing “ON/OFF” again.



**Lights Controls**

Power on halogen lights by pressing “LIGHT”.



Press 2nd time to dim.



Press again to turn lights off.

**Timed Delay Off**

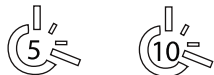
Press “DELAY OFF” once to power hood down in 5 minutes. (blowers and lights)



Indicator “5” will illuminate.

Indicator

Press “DELAY OFF” twice to power hood down in 10 minutes. (blowers and lights)



Indicator “10” will illuminate.



**SELF CLEANING FEATURE**

Zephyr Typhoon hoods are filter-less with a self cleaning feature. The centrifugal blower system automatically liquifies cooking residue in its internal housing. All hoods are equipped with dishwasher safe residue cups to collect cooking residue during the self cleaning function.

Cooking residue are often automatically liquified and can accumulate in the residue cups from everyday use. Nevertheless, grease from cooking could also dry and adhere the internal housing. Running the self clean function periodically will flush out accumulated residue in the range hood’s internal housing.

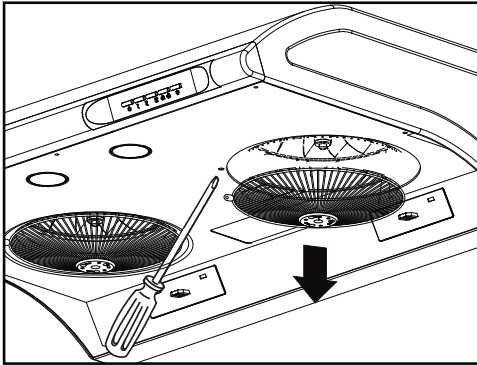
**CLEANING FREQUENCY**

Cleaning should be performed approximately once a month under normal usage of 1 hour per day. The hood may need to be cleaned more often if you cook heavily.

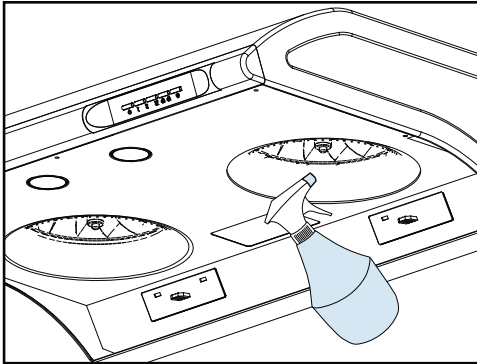
**DETERGENT**

Use a grease cutting detergent such as Simple Green or 409.

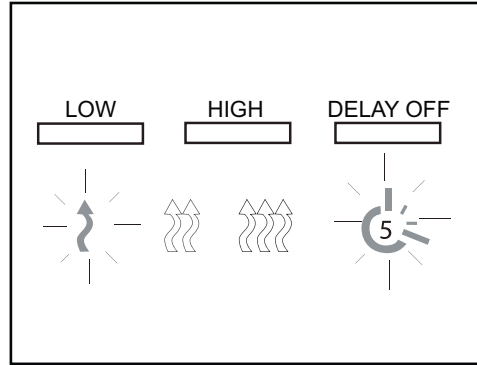
**CLEANING INSTRUCTIONS**



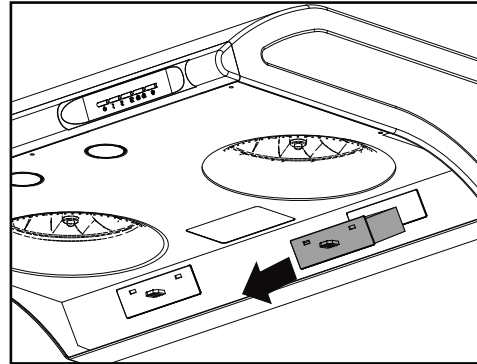
1) Remove safety grilles by removing the Philips head screw securing each grille to the hood body.



3) With nozzle on “spray”, squirt grease cutting detergent onto blower wheel blades 30 - 35 times. Repeat for each blower. Detergent will collect in the residue cups.



2) Power on blowers at Speed 1 and set timed Delay Off to “5” minutes.



4) Remove residue cups. Clean residue cups and safety grilles in dishwasher or clean by hand. Replace residue cups and safety grilles after cleaning.

**WARNING**

Use extreme caution while cleaning the hood when safety grilles are removed. Beware of blowers catching on to hair, loose clothing and fingers. NEVER leave children unattended.

**SURFACE MAINTENANCE**

Clean periodically with hot soapy water and clean cotton cloth. Do not use corrosive or abrasive detergent, or steel wool/scouring pads which will scratch and damage surface. Do not use products containing chlorine bleach or orange cleaners.

For heavier soil use liquid degreaser.

After cleaning, you may use non-abrasive stainless steel polish/ cleaners, to polish and buff out the stainless luster and grain. Always scrub lightly using a micro fiber or clean cotton cloth and with grain.

**CLEANING TIP**

Fill residue cups 1/4 full with water after cleaning. This will help prevent residue from drying and sticking on the cup surface

**REPLACING LIGHT BULBS**

**CAUTION: Light bulb becomes extremely hot when turned on.**

**DO NOT touch bulb until switched off and cooled. Touching hot bulbs could cause serious burns.**

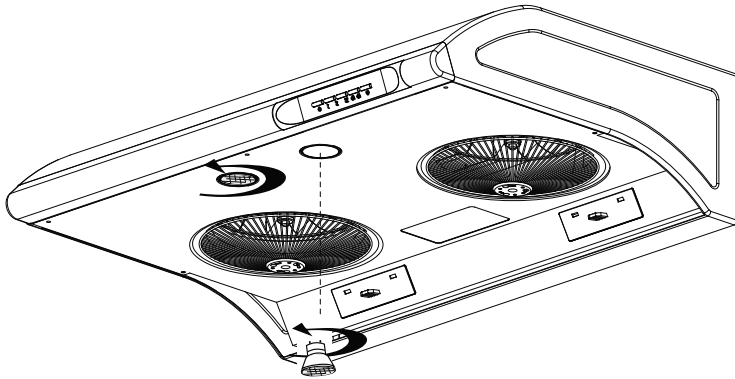
Make sure all power is turned off and bulbs are not hot.

Remove by turning bulb counter clockwise. **Note:** Bulb does not unscrew; it turns 60 degrees, stops and falls out.

If bulbs are difficult to turn due to prolonged use, firmly attach suction cup included in hardware package or use a rubber/latex glove and turn counter clockwise.

Replacement bulbs are available at specialty lighting stores. Purchase type MR16 (GU-10) 35W halogen.

For Zephyr part numbers please turn to page 21 of the manual.



## TROUBLESHOOTING PROCEDURES FOR TYPHOON

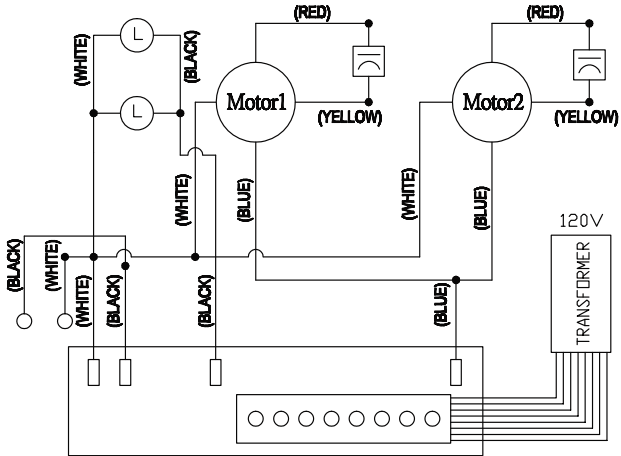
Issue	Cause	What to do
After installation, the unit doesn't work.	1. The power source is not turned ON.	1. Make sure the circuit breaker and the unit's power is ON.
	2. The power line and the cable locking connector is not connecting properly.	2. Check the power connection with the unit is connected properly.
	3. The switch board and control board wirings are disconnected.	3. Make sure the wirings between the switch board and control board are connected properly.
	4. The wires on control board are loose.	4. Make sure the wires on the control board are connected properly.
	5. The switch board or control board is defective.	5. Change the switch board or control board.
Light works, but motor is not turning.	1. The motor is defective, possible seized.	1. Change the motor.
	2. The thermally protected system detects if the motor is too hot to operate and shuts the motor down.	2. The motor will function properly after the thermally protected system cool down.
	3. Damaged capacitor.	3. Change the capacitor.
	4. The motor wire is not connected.	4. Make sure the motor wire is plugged into the molex connector.
The unit is vibrating.	1. The motor is not secure in place.	1. Tighten the motor in place.
	2. Damaged blower wheel.	2. Change the blower.
	3. The hood is not secured in place.	3. Check the installation of the hood.
The motor is working, but the lights are not.	1. Defective halogen bulb.	1. Change the halogen bulb.
	2. The light bulb is loose.	2. Tighten the light bulb.
	3. The wires on the control board are loose.	3. Make sure the wires on control board are connected properly.
The hood is not venting out properly.	1. The hood might be hanging too high from the cook top.	1. Adjust the distance between the cook top and the bottom of the hood within 26" and 36" range.
	2. The wind from the opened windows or opened doors in the surrounding area are affecting the ventilation of the hood.	2. Close all the windows and doors to eliminate the outside wind flow.
	3. Blockage in the duct opening or duct work.	3. Remove all the blocking from the duct work or duct opening.
	4. The direction of duct opening is against the wind.	4. Adjust the duct opening direction.
	5. Using the wrong size of ducting.	5. Change the ducting to correct size.
Safety grille is vibrating.	1. Safety grille is loose.	1. Tighten safety grille screw.

# Wiring Diagram



Model	AK-2100/36/42/48-r
Voltage	120V 60Hz
Power consumption	
Total:	280W
Lamp:	Max35Wx2
Fan:	210W

CIRCUIT DIAGRAM



REMARKS:CONDENSER 4 μ F 250Vx2 AC FIT AC120V 60Hz

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<b>DESCRIPTION</b>	<b>PART #</b>
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**Replacement Parts**

Light Bulb MR16 (GU10) 35W (each)	Z0B-0023
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**Optional Accessories**

Telescopic Back Splash, 30" SS	AK0710
Telescopic Back Splash, 36" SS	AK0716
Telescopic Back Splash, 42" SS	AK0712
Telescopic Back Splash, 48" SS	AK0718

To order parts, visit us online at <http://store.zephyronline.com> or call us at 1.888.880.8368