

# WINDSTER<sup>TM</sup>

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MODEL:RA-280

## OPERATION MANUAL



Please read and save this guide through before using your range hood.  
Store the guide away in a safe place so that you will know where it is,  
when you want to refer to it.

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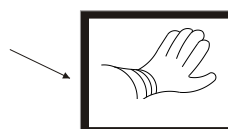
## WARNING

**Due to sharp edge, please wear**

**"Safety Workman Gloves"**

**for installation, cleaning, light bulb changing and  
dismantling to reduce the risk of any bodily injuries.**

**Safety Workman Gloves**



## A. Important Safety Instructions

Read and Save These Instructions

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

**WARNING-** To reduce the risk of fire or electric shock, do not use this fan with any solid- state speed control device.

**WARNING-** To reduce the risk of fire, electric shock, or injury, 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 the unit, switch power off at service panel to prevent power from being switched on accidentally.

**CAUTION-** For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapours.

**WARNING-** 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.

D- Use proper pan size. Always use cookware appropriate for the size of the surface element.

WARNING- To reduce the risk of injury in the event of a range top grease 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- 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 guideline and safety standards such as these 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.

Keep the range hood clean.

WARNING- To reduce the risk of fire, use only metal duct work.

## B. Safety Notes

1. All electrical work must be done in accordance with local and/or national electrical code as applicable for safety. This product must be grounded if your are unfamiliar with methods of installing electrical wiring, secure the services of a qualified electrician.
2. Turn off power at service entrance before installing wiring or servicing this product. (120 volt for range hood. 220 volt for electric range if any)
3. Turn off power to avoid risk of fire, electric shock, or injury for cleaning or maintenance such as lubrication.
4. Fireplaces, gas furnaces, water heaters,require proper flow of combustion air and exhaust. Make sure this flow is not altered when using any exhaust fan.
5. Please read specification label on product for further information and requirements.
6. Please wear "Safety Gloves" for installation, cleaning, light bulb changing and dismantling to reduce the risk of any injuries.

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

## C. Tools and Materials Required

- ▶ Drill, electric or ratchet drive, with 3/16" wood bit (for drilling starter holes and 1 1/4 " wood bit (to drill an access holes in the cabinet or kitchen wall for the electric power line)
- ▶ One common screwdriver.
- ▶ Plier (for opening electrical knockout).
- ▶ Two 1" (thick)x2" (wide)x12" (approximate length) wood strips for recessed bottom kitchen cabinet installation only. (Purchase locally).
- ▶ Electrical wire and supplies to comply with local cords.
- ▶ Four 1 1/4 " long flat head wood screws (purchase locally) to mount wood strips.
- ▶ Pencil and ruler for marking locations. Saber saw or keyhole saw for cutting the 1"x2" wood strips to length.

## D. Accessory Package

1. Wood screws 3/16" x 1" L    6pcs.
2. Wire connector with spring   3pcs.
3. Washer    4pcs.

## E. Preparing The Range Hood

1. Remove the top electrical knockout, you may plan to bring power to the range hood either through the cabinet or through the wall (Fig.1)

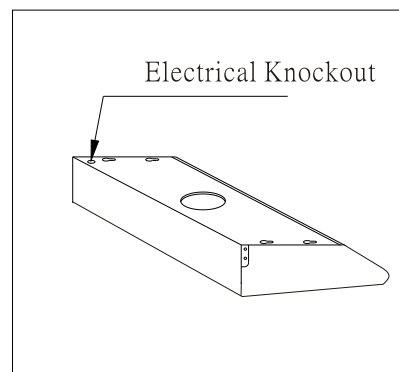


Fig.1

2. Insert a screwdriver into the knockout slot and bend the knockout back and forth. (Fig.2)

You may have to use pliers to pull the loosened knockout free.

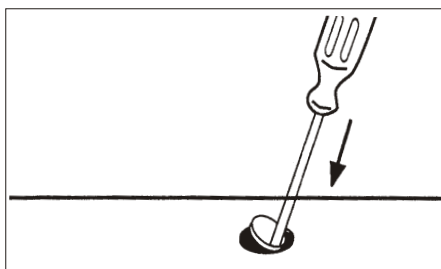


Fig.2



Fig.3

### Note:

When installed, the bottom edge of your range hood should be 28" ~ 32" above the top of the cooking surface. (Fig.4)

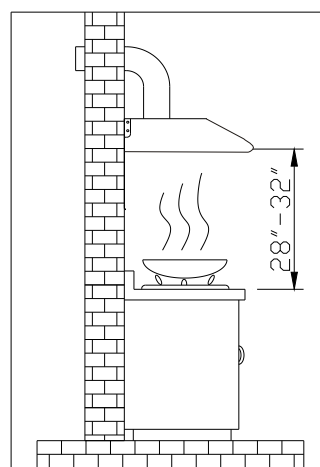


Fig.4

## F. Preparing The Installation Location

Note: Please also refer P.10 "J. Making the Electrical Connection"

1. A. If you want to move the electric range to make room for working on the cabinet turn off the 220 volt power for the electric range at the service entrance.
- B. Before moving a gas range, shut off the gas.

**Note:** Omit steps 2a through 2d if the hood is to be mounted on a cabinet with a flush bottom.

2. For installation onto a recessed bottom cabinet:
  - a. Measure the space (under the cabinet between the inside front edge and inside back edge (Fig.5). With a saber, cut two 1"x2" wood filler strips (purchased locally) to fill in the bottom of the cabinet.
  - b. Start a  $1\frac{1}{4}$ " long wood screw (purchased locally) about 3" from each end of the 1"x2" wood strips (Fig.6)
  - c. Position the strips on the cabinet bottom and screw the strips securely to the cabinet (Fig.7)
  - d. For a more secure installation, drill four  $\frac{3}{16}$ " holes from inside the cabinet, down into the wood filler strips. Insert screws into the starter holes in cabinet and tighten screws until wood filler strips are secured under cabinet.
3. Center the hood in place beneath the cabinet and flush with the front of the cabinet. Mark the following:
  - a. The four keyhole mounting slots for the hood. Mark these onto the bottom of the cabinet; or, if the cabinet bottom is recessed. Onto the wood strips (Fig.7)
  - b. The electrical knockout hole. (Fig.1)

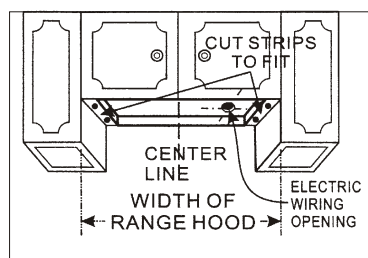


Fig.5

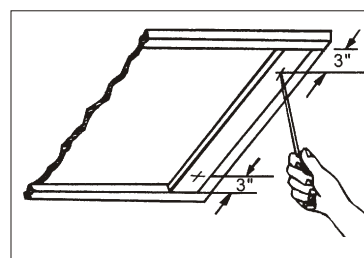


Fig.6

4. Screw the four 1" wood screws (for mounting the hood) into the exact center of the arrow and of the keyhole mounting slots marked on the cabinet bottom (for flush installations), or marked on the 1"x2" wood strips (for recessed cabinet installation) (Fig.7)

Do not turn the mounting screws in all the way. Allow 3/8" of screw to project, so the hood can be fitted place. (The screws will be tightened later)

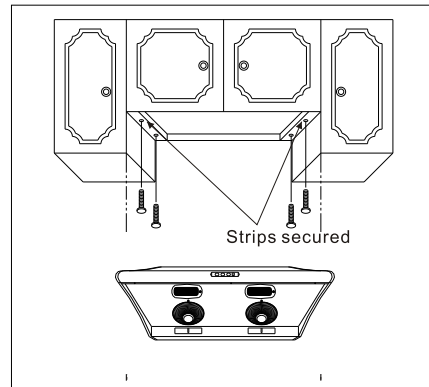


Fig.7

## G. Providing Electrical Power

Note: Please also refer P.10 "J. Making the Electrical Connection"

1. After turning off the proper 120 volt circuit at the service entrance, drill out the electrical power line access hole marked on the cabinet bottom or wall. Use a 1 1/4 "wood bit. To operate the electric drill, use an extension cord connected to another circuit. (Fig.8)
2. Fish the electrical power line through the access hole drilled in the wall or bottom of the cabinet. Attach an appropriate connector (purchased locally) to the end of the power line for the type of wiring being installed. Follow all codes. (Fig.9)

### Safety Warning:

If drilling into the walls, be careful not to cut existing electrical cables, which would create a hazard.

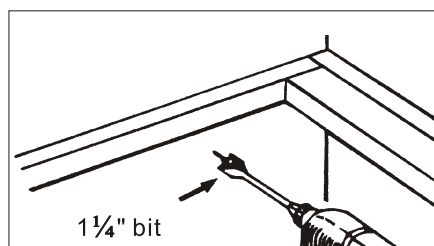


Fig.8

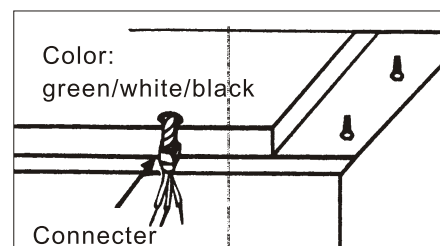


Fig.9

## H. Top/Rear Vent Ducting Installation

Installation no matter under cabinet or stand alone (without cabinet)  
make sure the duct vent either Top vent ducting or Rear vent ducting.

See the following charts.

### Top vent duct

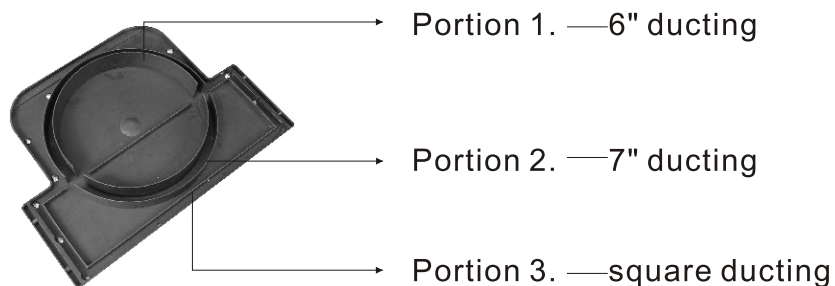


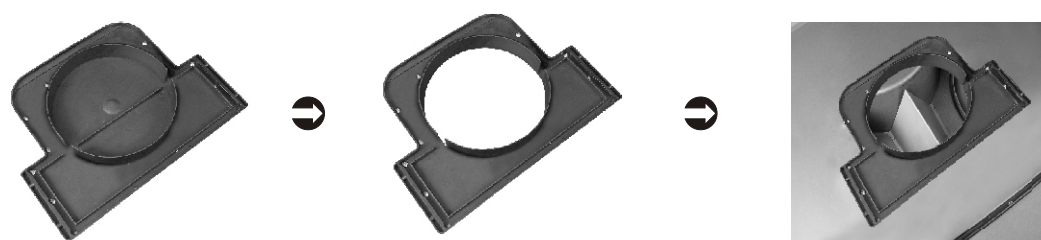
Fig (1)

### 6" round vent



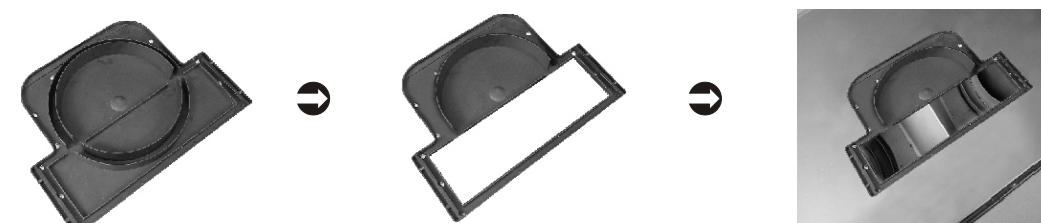
Take off the multi duct exhaust then use a cutter to cut the portion 1 as fig ( 1) above.

### 7" round vent



Use a cutter to cut the portion 2.

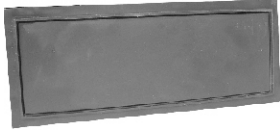
### Square 3-1/4" x 10" vent



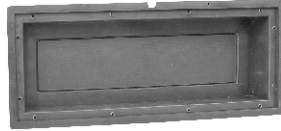
Use a cutter to cut the portion 3.

## Rear vent duct

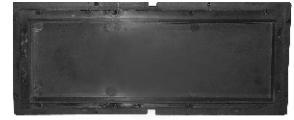
1. outer vent



2. inner vent

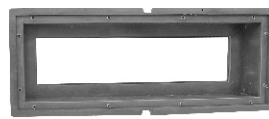
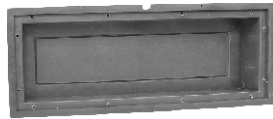


1 + 2



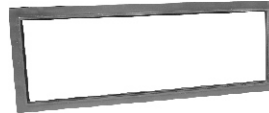
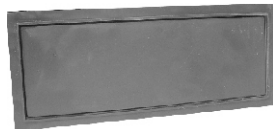
Cut the Inner vent (step 1.) and Outer vent (step 2.) Opening.

Step 1.



Inner vent

Step 2.

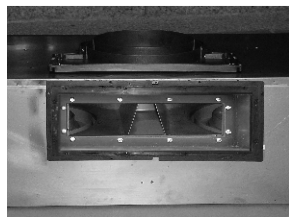


Outer vent

Reverse the outer vent to the other side and the gasket as well.

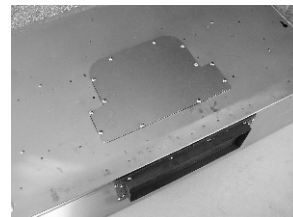
## For stand alone

The top multi-duct exhaust you may keep as it is (A) or replace by a metal plate (B).



(A)

or



(B)

For under cabinet replace top multi-duct exhaust by a metal plate



## I. Mounting Range Hood To Cabinet

1. Position the hood in place so that :
  - a. The electrical line is routed through the appropriate Knockout opening. This step will have to be accomplished while positioning the hood (Fig.10)
  - b. The large part of the keyhole mounting slots on the hood fit onto the hood mounting screws projecting from the bottom of the cabinet. (Fig.11)
2. Adjust the hood so the front is flush with the cabinet front.
3. Tighten the hood mounting screws all the way into the cabinet or into the 1" x 2" wood strips so the hood is secure.

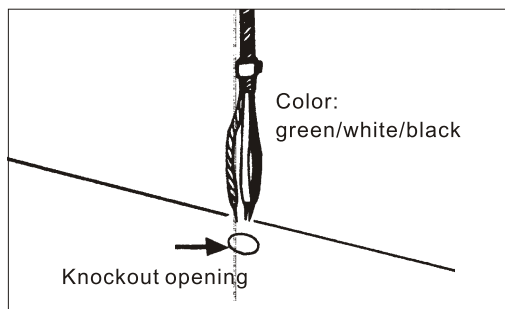
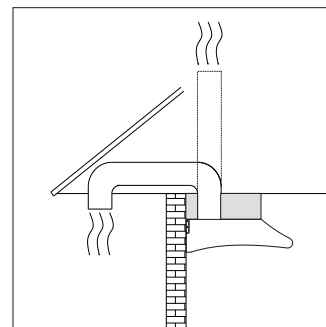


Fig.10



Top vent ducting

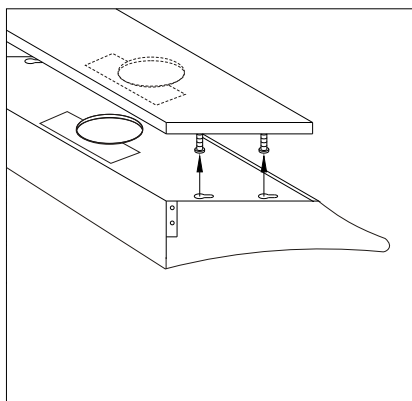
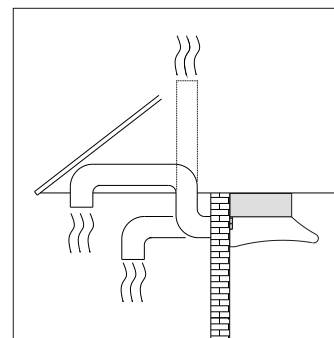


Fig.11

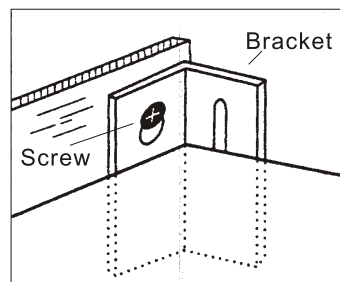


Rear vent ducting

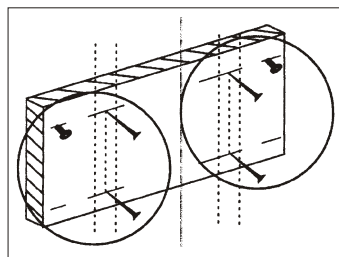
## J. Mounting Range Hood Stand Alone (Without Cabinet)

Note: Please also refer P.11 "J. Making the Electrical Connection"

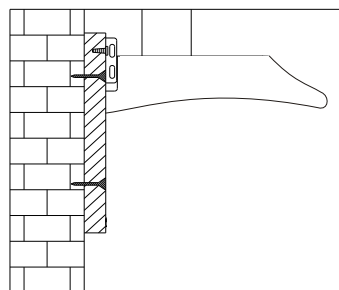
1. Using metal brackets and screws (included), center hood onto board and install screw.



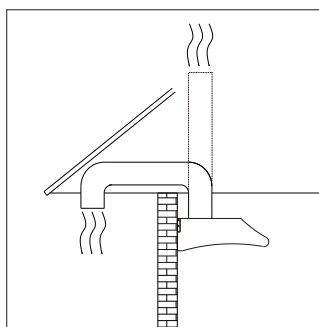
2. Remove the hood from the board and nail the wood board onto the wall. (Be sure the nail is in the center of the stud)



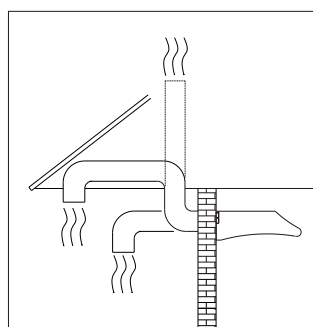
3. Place the range hood on the board and tighten the screw.



4. Complete finished



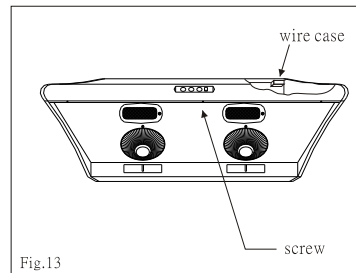
Top vent ducting



Rear vent ducting

## K. Making the Electrical Connection

1. Turn the three nuts at the front of bottom board. ( Fig.13)
2. Remove screws on wiring case, fish out wires through the knockout. (Fig.13)



3. Mark the electrical connection by fastening all wires to the existing wall wiring according to the their colors. (Black to Black, White to White, Green to Ground)
4. After connection is done, reinstall wiring case cover and bottom board.
5. Slide plastic collection cups onto the back metal mounting.
6. Turn on power and check operation of fan and light.

## L. Use and Care

Note: For Stainless Steel type, peel off the PVC films before use.

Operate switches (Fig.15)

Switch A : Light switch

Switch B : Right fan switch

Switch C : Left fan switch

II- high speed 0- off I- low speed

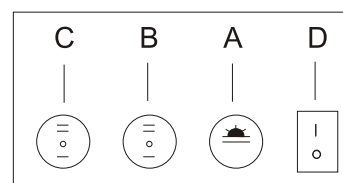


Fig.15

Switch D : Turbo mode for immediately boost

When turn this turbo mode switch ON, no matter the right/left fan at what speed, it will be on the turbo speed immediately.

When turn the turbo mode switch OFF the right/left fan speed will be back to the original speed.

After you are finished cooking please always remember to turn control switches B and C off.

**Note :**

Range hood should be turn on either before or the same time when cooking begins. After cooking, range hood should be kept on for about 3 more minutes for complete ventilation of cooking odor.

Care Instruction:

Please always pull the plug out outlet, when cleaning or dismantling, wear "Safety gloves" to reduce the risk of any bodily injuries.

Exterior: Can be clean with any type of non-abrasive detergent and a clean cloth. "Green Pad" etc. And any metal type cleaning pad is not recommended for exterior.

Interior : 1. Switch ON the fan at High, mix mild detergent with water in mist-sprayer, at fine-spray mixture on to the blades for 60 seconds with the fan running.

2. Leave fan on for an additional 4-5 minutes to dry oil basin.

3. Repeat on other turbine vane (can be cleaned simultaneously with the first).

## M. Maintenance Instruction

1. Maintenance shall be important than repair. Please take care of the needed maintenance in order to secure and extend the excellent functions and using life.

**Note :**

Before repairing the range hood. Disconnect the power source.

2. After using the machine, wipes the machine by neutral detergent in order to keep it clean and maintain the appearance with brightness and sanitation.

3. When the level of dirty oil of the collector reached 4/5 of height, it has to be removed in order to avoid overflowing and pollution.

## N. Ducting

This style of range must be vented via ducting to the outside of the house. Follow general rules when ducting the hood: Use correct size of ducting (6" or 7" round), do not reduce size of ducting, make all turns gradual, no short corners. If ducting run will be longer than 10 feet enlarge duct by at least 1" inch diameter after each 10 feet. Tape all joints in ducting and all gasketed openings on hood for a tight seal.

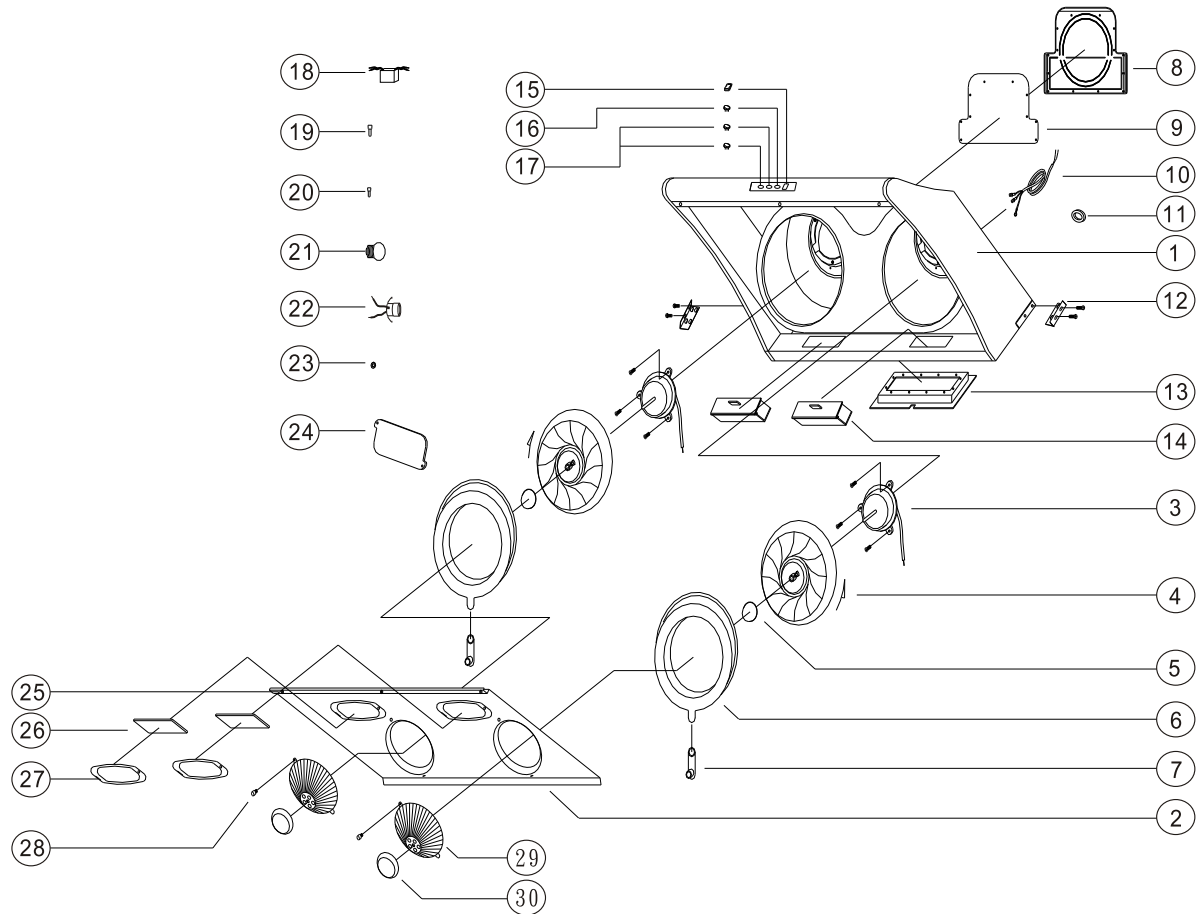
For round ducting from the top:

Fit the gray plastic (Included) over the circular opening on top in order to provide a tight seal for ducting to attach to. The GRAY ring is designed to fit either 6" or 7" ducting.

## O. Simple Trouble Shooting Rules

Symptom	Correction
Fan are not operatable.	A. Check power source to see if it is normal. B. Check power inlet plug to see if it is plugged firmly into it's socket.
Illuminating indicator lamp burned out light.	A. Disconnect the power source. B. Check lamp bulb, replace it with a new one if it is burned out.
Hood vibrates.	A. Check for damaged vanes. B. Check if exhaust duct is secured.

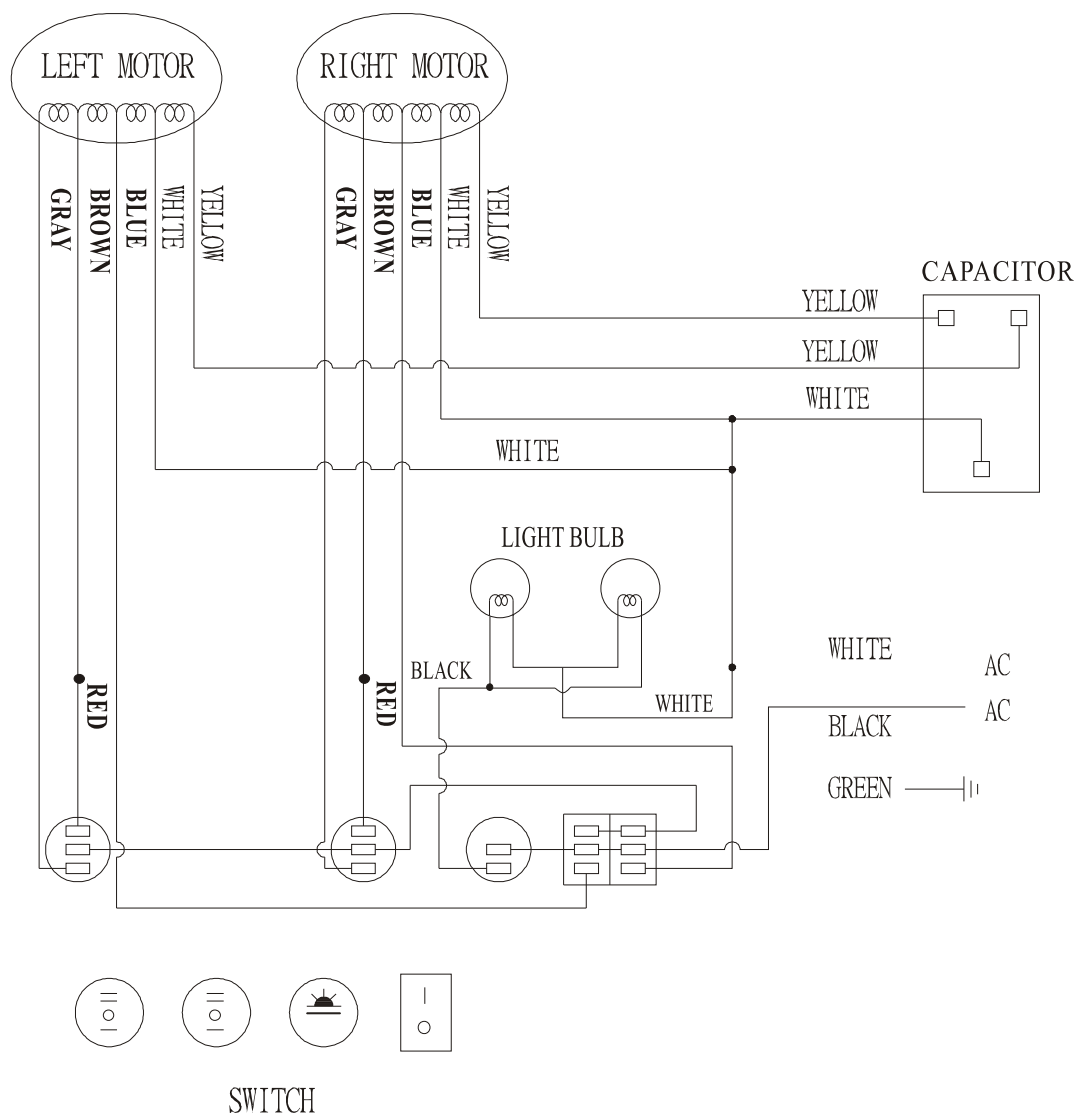
## P.Parts Layout Diagram



1	Machine body	11	Cord bushing (L)	21	Light bulb
2	Bottom board	12	Hanger	22	Light bulb socket
3	Motor (left and right)	13	Vent cover (Rear)	23	Cord bushing (S)
4	Fan (left and right)	14	Oil collector	24	Wire box cover
5	Fan cap	15	Turbo switch	25	Screw
6	Oil basins L/R	16	Light switch	26	Glass
7	Oil pipe	17	Speed switch	27	Lamp shade
8	Multi duct exhaust	18	Capacitor	28	Screws
9	Vent cover (Top)	19	Wire connector (L)	29	Safety mesh L/R
10	Power cord	20	Wire connector (S)	30	Small oil cup

## Q. Circuit Diagram

NOTE : Any faults with this unit should only be attended to by a qualified technician.



## R.Size

