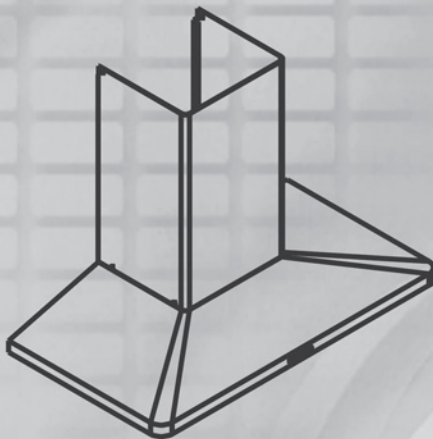


WINDSTER™

MODEL : RA- 2290

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.

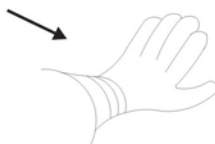
Table of contents

A. Important safety Instructions	P.1
B. Safety notes	P.3
C. Tools and materials required	P.7
D. Halogen light replacement	P.7
E. Accessories	P.8
F. Simple trouble shooting rules	P.8
G. Operation	P.9
H. Maintenance and cleaning	P.10
I. Maintenance Instruction	P.10
J. Parts layout diagram	P.11
K. Spare parts numbers	P.12
L. Circuit diagram	P.13
M. Specifications	P.13

Safety Note

Please wear "Safety Workman Gloves" for installation, cleaning, halogen light changing and dismantling to reduce the risk of any bodily injuries.

Safety Workman Gloves



A. Important safety Instructions

Read and Save These Instructions

1. Make sure the power is off before installing, wiring or maintenance.
2. Please keep the range hood clean.
3. To get the best performance, the vertical clearance between the cook - top and the Chimney hood should range from 24" to 32". (Fig.1)

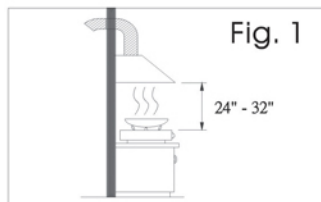
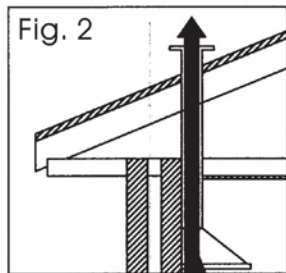


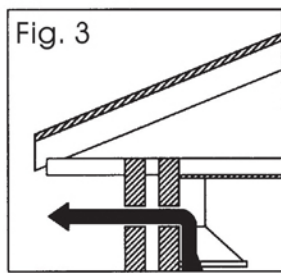
Fig.1 : Optimum Chimney hood height

Ducting method

- A. This Chimney hood must be flued to external air space either through the roof (fig.2) or through the wall (fig.3)



Ducting through the roof



Ducting through the wall

- B. Obstruction of exhaust will cause
- a. Uneven fan speed.
 - b. Reduced oil collection in one cup only
 - c. Could cause possible vibration.

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.

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 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 service panel to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, fasten a prominent warning device, such as a tag, to the service panel.
- C. 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.
- D. 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 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.
- E. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
- F. Ducted fans must always be vented to the outdoors.

CAUTION- For general ventilating use only. Don't use to exhaust hazardous or explosive materials and vapours.

WARNING- To reduce the risk of a range top grease fire:

- A- Clean ventilating fans frequently. Grease should not be allowed to accumulate on fan or filter.
- B- Always turn hood on when cooking at high heat or when cooking flaming foods.
- C- Never leave surface units unattended at high settings. Boilovers cause smoking and greasy spillovers that may ignite and spread if hood is used. Heat oils slowly on low or medium settings.
- D- Don't leave your range unattended when cooking.
- E- 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 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- To reduce the risk of fire, use only metal ductwork.

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 to person for cleaning or maintenance such as lubrication.
4. Fireplaces, gas furnaces, water heaters and the like 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.

Note:

Exhaust air should not be discharged into any chimney or flue, which may carry combustible products from other sources. In Addition, exhaust air should not be discharged into a wall cavity or into the roof space.

Installation and Maintenance must be carried out by qualified person only.

Body Mounting

Fit the Chimney hood body at the correct height via the brackets to the masonry surface, (Refer Fig. 4 for mounting screw measurements). Locate the hanging screw allowing a distance of 5 mm of the screw head to the wall.

Canopy Ducting

- A. Use the Upper Mounting Bracket to adjust the duct to the required height (maximum 27-1/6").

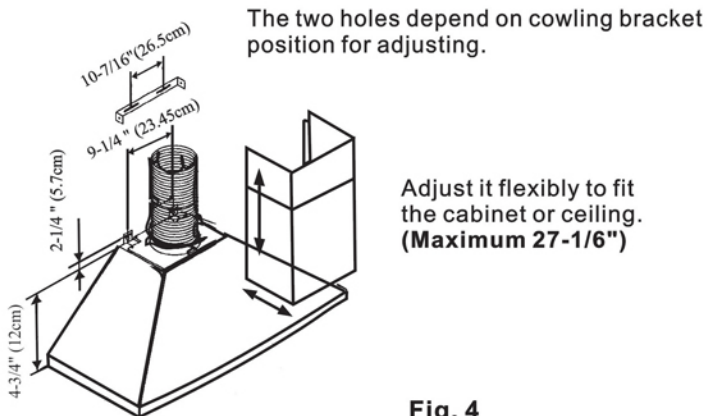


Fig. 4

- B. To fit the duct to the top of the canopy, slide the bottom lip under the black mounting and then lock in to place with the 4 screws provided. (**Fig. 4**)
- C. Ensure the mounted Chimney hood is level when installed for optimum performance. (**Fig. 5**)

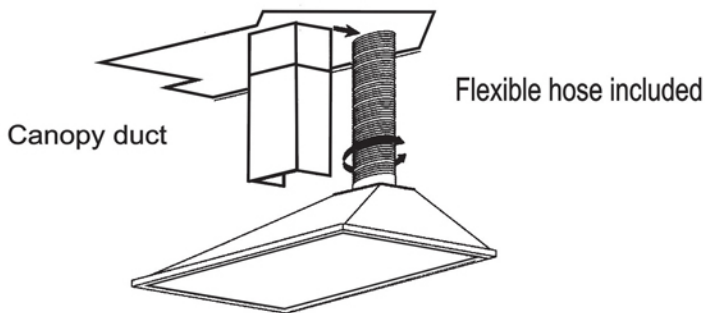


Fig. 5

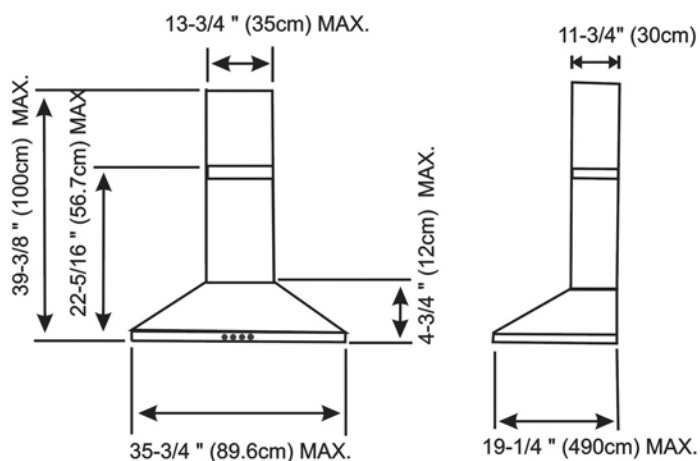


Fig. 6 Canopy dimension and ducting position

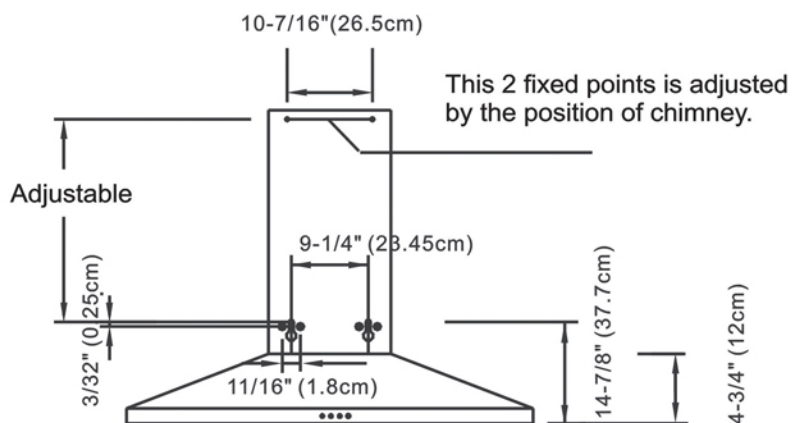


Fig. 7 Installation diagram

C. Tools and materials required

- One common screwdriver.
- Plier (for opening electrical knockout).
- Electrical wire and supplies to comply with local codes.
- Electrical power drill.

D. Halogen light replacement

Note:

The halogen light will be very hot when it is working **NEVER** touch it with bare hand(s).

Before changing halogen light ensure the unit is switched off and the halogen light is cool.

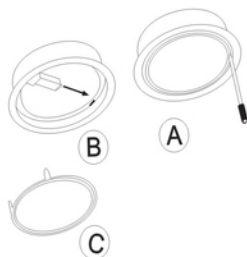








Fig. 8 Lamp assembly

Note : Ensure the unit is switched off. Before changing lamp.

- Using suitable tool (Small screwdriver) gently pry off the Lamp cover lens.
- Never touch the glass lamp surface with bare fingers, please always wear working gloves or use a suitable cloth to remove the unserviceable halogen light and replace a new one.
- Replace the lens cap and reconnect the power and test halogen light.

E. Accessories

Spare Parts Contents					Spare Parts Contents				
Item	Part	Description	Spec.	Q'ty	Item	Part	Description	Spec.	Q'ty
1		Manual		1	5		Duct Cover-Mounting Bracket		1
2		Round Collar	6"	1	6		Screws	Ø4x32	6
3		Greass Cup		2			Screws	Ø4x8	8
4		Greass Cup (Round)		2			Plastic Screws	1/4"	6

F. Simple trouble shooting rules

Symptom	Correction
Both fans are not operatable.	<p>A. Check power source to see if it is normal.</p> <p>B. Check power inlet plug to see if it is plugged firmly into it's socket.</p>
Illuminating indicator lamp gives no light.	<p>A. Disconnect the power source.</p> <p>B. Check lamp bulb, replace it with a new one if it is burned out.</p>
Hood vibrates.	<p>A. Check for damaged vanes.</p> <p>B. Check if exhaust duct is secured.</p>

G. Operation

Operate switches (Fig.9)

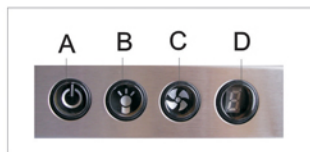







Fig.9


Switch A : "  " **ON / OFF / DELAY**

"ON" - When the hood is "OFF", turn on the blower by press "  " button once the blower will operate at second speed and LED Light indicate "2".



"OFF" - During operation, continue to press "  " button twice, the blower will stop, the LED light and halogen light will also turn off.

"Delay" - While the blower is in operation, press "  " button once, it will set the blower to turn off within 30 seconds automatically, and the LED light "  " is flashing until the blower stops.

Switch B : "  " - **Light switch**

- While the blower is in operation or not, turn the halogen light by press "  " button. Once press again to turn halogen light off.

Switch C : "  " - **Blower Control**

- While the hood is operation press "  " button once the blower will be rotated from 3 -> 2 -> 1 -> 2 -> 3 by circulation and the LED light "  " will be indicated the speed by 3 -> 2 -> 1 -> 2 -> 3 as well.

Switch D : "  " - **LED Indicator**

- To indicate the blower speed at 3, 2 or 1.
- Delay flash on or off.

To obtain the best performance from your Rangehood, turn the unit on before you start cooking and leave it running for 2 to 4 minutes on completion of your cooking. This will ensure all residue vapours have been collected and assist in cleaning any remaining cooking smells from the air.
Empty and dispose of the collected oil in the cups on completion is recommended.

H. Maintenance and cleaning

Regular maintenance and cleaning will ensure good performance and reliability, while extending the working-life of the Chimney hood.

Wipe the net over the fan/ Air intake on completion with a damp cloth this will assist in prevention of minute oil/grease build up.

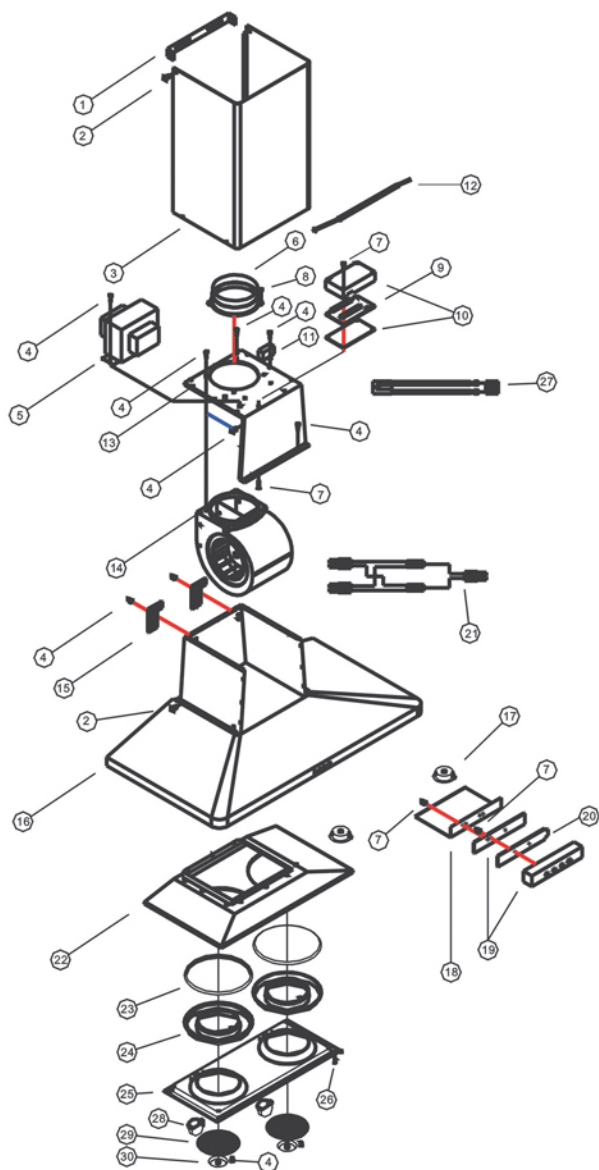
I. Maintenance Instruction

- A. 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 Chimney hood. Disconnect the power source.

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

J. Parts layout diagram



K. Spare parts numbers

Ref#	Spec.	Description"From Exploded View"	Per Hood
01	SECC	Chimney bracket	1
02	TS 4x8	Screws	4
03	SUS #430	Duct cover	1
04	3/16"x3/8"	Screws	45
05	INPUT :AC 110V 60Hz OUPUT : AC12V 40W/Max	Transformer	1
06	PP	6" Round plastic duct connector	1
07	TS 1/8"x1/2"	Screws	4
08	TS 4x12	Screws	2
09		Processor board	1
10	ABS	Processor board box	1
11		Capacitor	1
12		Power cord	1
13	SECC	Motor bracket	1
14	120V/60Hz	Motor	1
15	SECC	Mounting bracket	2
16	SUS# 430	Hood frame	1
17	JC12VMax. D 0.3m x 20W	Halogen lamp	2
18	SECC	Power bracket	1
19	ABS	Switch	1
20		Switch box	1
21		Halogen Lamp wire assembly	1
22	SECC	Air chamber	1
23	PVC	Oil seal	2
24	PP	Oil channel	2
25	SUS #430	Bottom casing	1
26	3/16" x 3/4"	Screws	6
27		Condensor wire assembly	1
28	PC	Oil container (oval)	2
29	SWRN, SWRH	Safety screen	2
30	PC	Oil container (round)	2

L. Circuit diagram

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

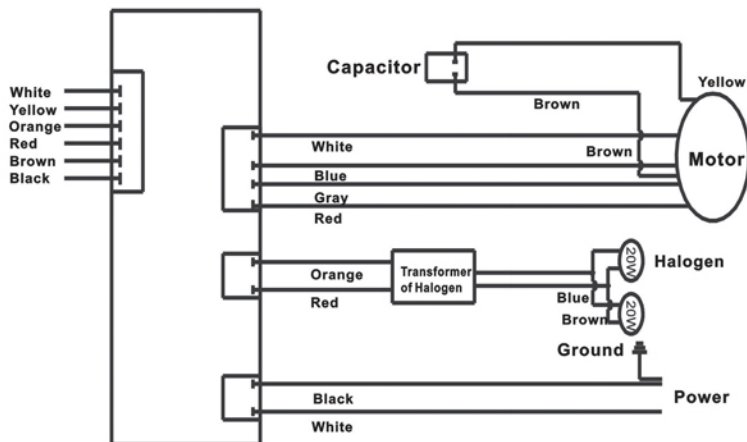
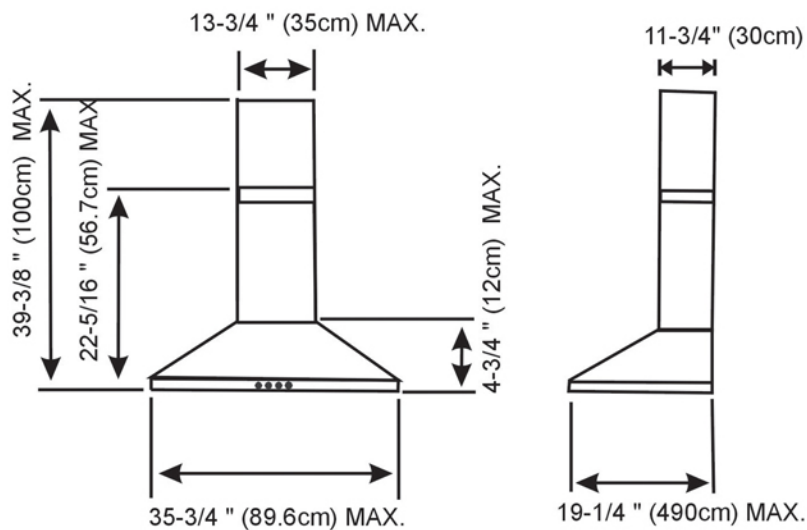


Fig. 10 Circuit

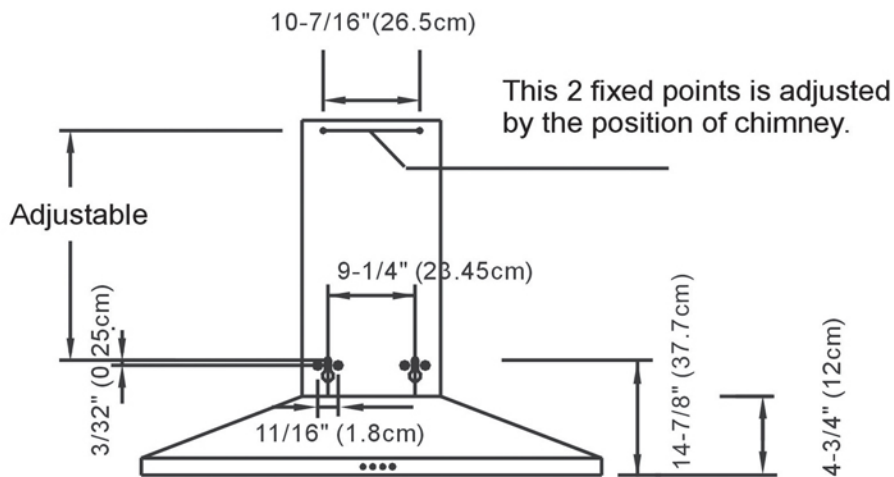
M. Specifications

SPECIFICATIONS	RA- 2290
Body size (LxDxH)	35-3/4" x 19-1/4" x 4-3/4"
Revolutions	Low- 650 ± 50 RPM, Middle -1100 ± 50 RPM, High -1600 ± 50 RPM
Exhaust Volume	400 ± 50 C.F.M. With Flexible tube(1m)
Consumption-Motor	160W
Consumption-Lamp	20W x 2
Rotation	Single Motor
Diameter of Exhausting Duct	6" & 7" Round Outlets
Voltage	120V/60Hz
Appearance Treatment	SUS 430 Hairline

RA-2290 SIZE



Canopy dimension and ducting position



Installation diagram

ONE-YEAR LIMITED WARRANTY

Every **WINDSTER** RANGE HOOD is thoroughly inspected and tested before leaving the factory. It will also be tested by our agents (USA or CANADA). And displayed in front of customers to prove merchantability or fitness at the time of purchase.

Every mail-order merchandise will also be inspected, tested, and carefully packed by our agents before mailing to customers.

During ONE-YEAR warranty period from the date of original purchase, defective parts could be carried or mailed to your agent to exchange for new parts free of charge, however, your agents will extend this same warranty service for _____ year(s).

Should there be any questions regarding this product, please, contact the service dedicated line :

For service contact :
1848 South San Gabriel Blvd,
San Gabriel, CA 91776
Tel : 626-571 2922
Fax: 626-571 8352

Model: _____ Size: _____ Type: _____

Date of purchase: _____

Authorized agents seal: _____

Customer's Name: _____

Address: _____

Tel: _____

This warranty is invalid without an authorized agent's seal. If the range hood has already been installed or used, return will not be accepted.