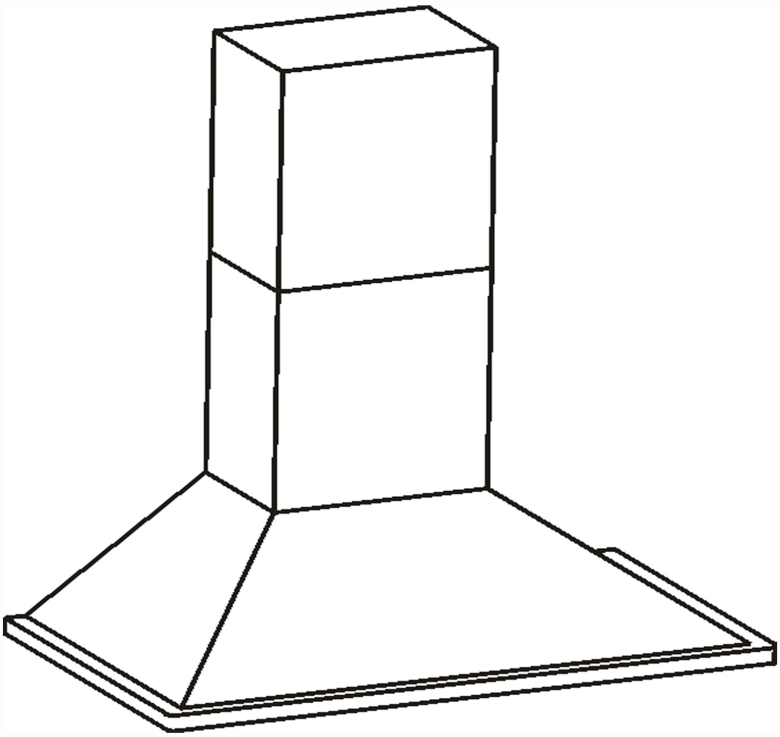
Empava
Appliances

WALL MOUNT RANGE HOOD



30RH03/36RH04

Installation Guide and Users Manual

C ETL LISTED US
Intertek

Important Safety Notice

Read all Instructions before Installing and operating this appliance

- The installation in this manual is intended for qualified installers, service technicians or persons with similar qualified background. Installation and electrical wiring must be done by qualified professionals and in accordance with all applicable codes and standards, including fire-rated construction.
- DO NOT attempt to install this appliance yourself. Injury could result from installing the unit due to lack of appropriate electrical and technical background.
- Range hood may have very sharp edges; please wear protective gloves if it is necessary to remove any parts for installing, cleaning or servicing.
- Activating any switch ON before completing installation may cause ignition or an explosion.
- Due to the size and weight of this range hood, two people installation is recommended.

To reduce the risk of fire, electric shock, or injury to persons:

- For general ventilating use only. DO NOT use to exhaust hazardous or explosive materials and vapors.
- The combustion air flow needed for safe operation of fuel-burning equipment may be affected by this unit's operation. 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 of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.
- Before servicing or cleaning unit, switch power OFF at service panel and lock service panel to prevent power from being switched ON accidentally.
- Clean grease laden surfaces frequently. To reduce the risk of fire and to disperse air properly, make sure to vent air outside. DO NOT vent exhaust into spaces between walls, crawl spaces, ceiling, attics or garages.
- Ducted fans MUST always be vented to the outdoors.
- Use only metal ductwork and this unit MUST be grounded.
- Sufficient air is needed for proper combustion and exhausting of gases through the duct to prevent back drafting.
- When cutting or drilling into wall or ceiling, be careful not to damage electrical wiring or other hidden utilities.
- All electrical wiring must be properly installed, insulated and grounded.
- Old duct work should be cleaned or replaced if necessary to avoid the possibility of a grease fire.
- Check all joints on duct work to insure proper connection and all joints should be properly taped.
- Use this unit only in the manner intended by the manufacturer. If you have questions, contact the vendor.

To reduce the risk of a stove top grease fire:

- Keep all fan, baffle, spaces, filter, grease tunnel, oil container and grease-laden surfaces clean. Grease should not be allowed to accumulate on fan, baffle, spaces, filter, grease tunnel and oil container.
- Always turn range hood ON when cooking at high heat or when cooking flaming foods.
- Use high settings on cooking range only when necessary.
- Never leave surface units unattended at high settings. Boil overs cause smoking and greasy spillovers that may ignite. Heat oils slowly on low or medium settings.

Important Safety Notice

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- Clean ventilating fan frequently.
- Always use appropriate cookware and utensils size.
- Always use cookware appropriate for the size of the surface element.

To reduce the risk of injury to persons in the event of a stove top grease fire:

- SMOTHER FLAMES with a close-fitting lid, cookie sheet, or metal tray, then turn OFF the burner. BECAREFUL TO PREVENT BURNS. NEVER PICK UP A FLAMING PAN—you may be burned. KEEP FLAMMABLE OR COMBUSTIBLE MATERIAL AWAY FROM FLAMES. If the flames DO NOT go out immediately, EVACUATE AND CALL THE FIRE DEPARTMENT or dial your local emergency service immediately.
- DO NOT USE WATER, including wet dishcloths or towels — a violent steam explosion will result.
- Use an extinguisher ONLY if:
  - You know you have a Class A, B, C extinguisher, and you already know how to operate it.
  - The fire is small and contained in the area where it is started.
  - The fire department is being called.
  - You can fight the fire with your back to an exit.

To reduce the risk of injury to persons in the event of a gas leaks:

- Extinguish any open flame.
- DO NOT turn on the range hood fan or any type of ventilator.
- DO NOT turn on the lights or any type of appliance.
- Open all doors and windows to disperse the gas. If you still smell gas, call the gas company and fire department, or dial your local emergency service immediately.

Your safety and the safety of others is very important. We have provided many important safety messages in this manual and on your appliance. Always read and obey all safety messages. All safety messages will tell you what the potential hazard is, tell you how to reduce the chance of injury, and tell you what can happen if the instructions are not followed.

This is the safety alert symbol. This symbol alerts you to potential hazards that can hurt you and others. All safety messages will follow the safety alert symbol and the word “WARNING”.

The manufacturer and/or distributor/reseller 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 and/or distributor/reseller further declines all responsibility for injury due to negligence and the warranty of the unit automatically expires due to improper maintenance.
The manufacturer and/or distributor/reseller will not be held responsible for any damages to personal property or real estate or any bodily injuries whether caused directly or indirectly by the range hood.

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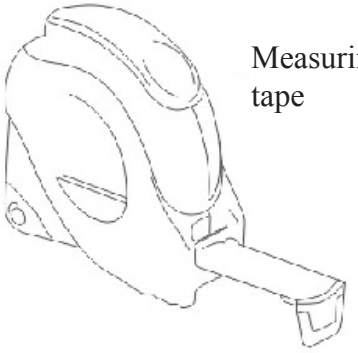
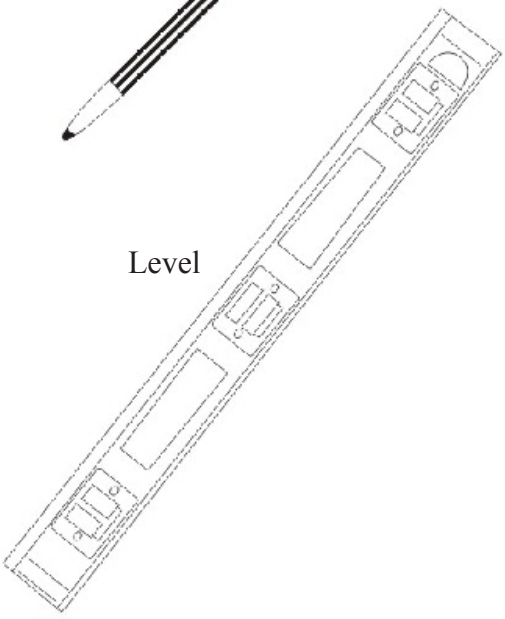
Tools needed:

Marker or pencil

Utility knife



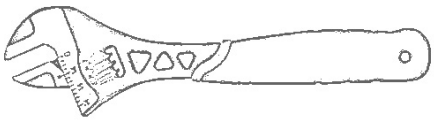
Measuring tape

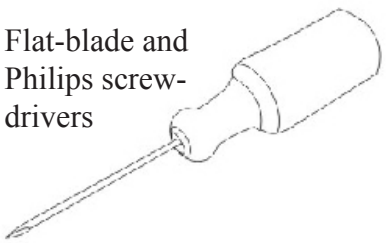


Level

Powered screwdriver or drill

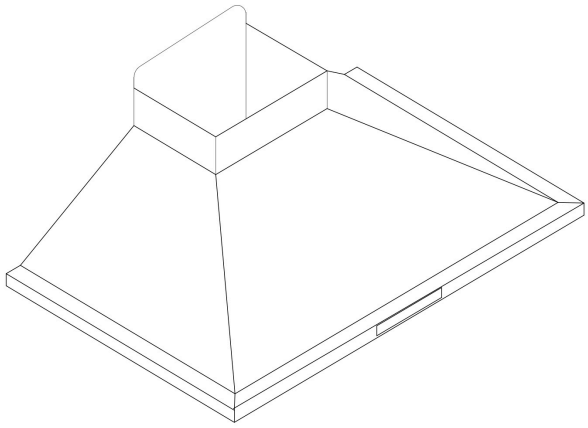
Adjustable Wrench

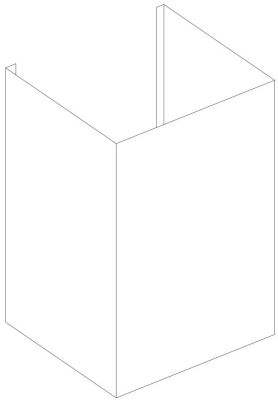




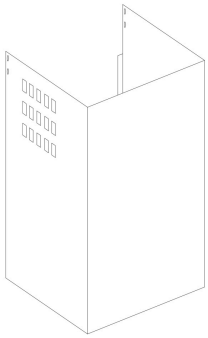
Flat-blade and Philips screw-drivers

Range hood

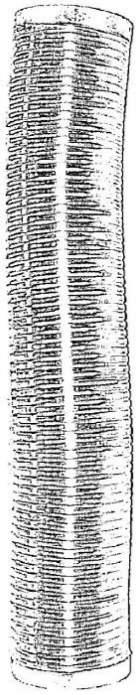




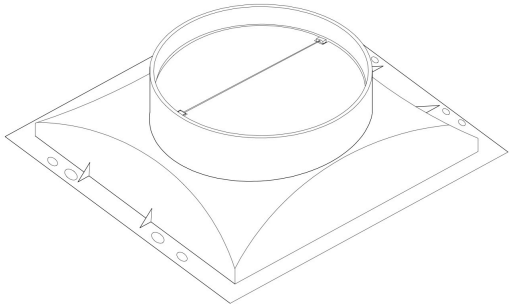
Lower Chimney



Upper Chimney



Optional Duct Tube

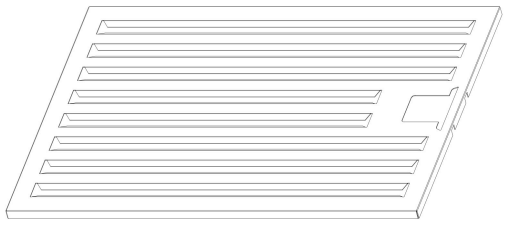


Ducting Transition

Screw Set

A1:Qty=4
A2:Qty=2

B1:Qty=4
B2:Qty=2



Stainless steel Baffle filter

C:Qty=6

Venting Requirements

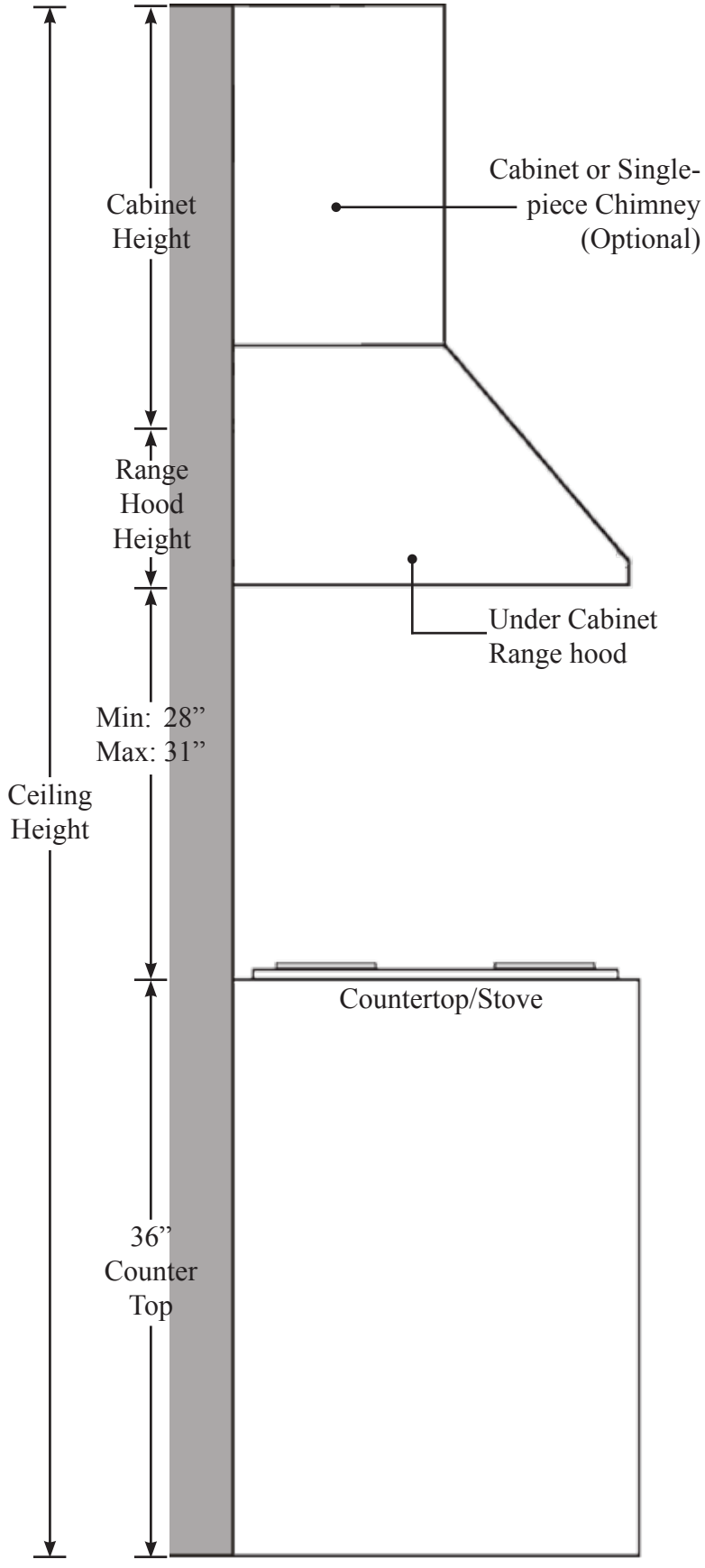
- Vent system must terminate to the outside (roof or side wall).
- DO NOT terminate the vent system in an attic or other enclosed area.
- DO NOT use 4” (10.2 cm) laundry-type wall caps.
- Use metal/aluminum vent only. Rigid metal/aluminum vent is recommended.
- DO NOT use plastic vent.
- Always keep the duct clean to ensure proper airflow.
- Calculate the following figures before installation:
  1. *Distance from the floor to the ceiling.*
  2. *Distance between the floor to the countertop/stove (recommend* 28” to 31”).*
  3. *Distance between the countertop/stove to the range hood.*
  4. *Height of hood and duct cover.*

For the most efficient & quiet operation:

- A distance of 28” to 31” is recommended* between stove top and the bottom of range hood.
- It is recommended that the range hood be vented vertically through the roof through 8” (20.3 cm) or bigger round metal/aluminum vent work.
- The size of the vent should be uniform.
- Use no more than three 90° elbows.
- Make sure there is a minimum of 24” (61 cm) of straight vent between the elbows if more than one elbow is used.
- DO NOT install two elbows together.
- The length of vent system and number of elbows should be kept to a minimum to provide efficient performance.
- The vent system must have a damper. If roof or wall cap has a damper, DO NOT use damper (if supplied) on top of the range hood.
- Use silver tape or duct tape to seal all joints in the vent system.
- Use caulking to seal exterior wall or roof opening around the cap.

* Due to different ceiling height configurations, recommended height may not be applicable.

Height & Clearance



IMPORTANT:

- A minimum of 6” round (standard for this range hood) or 3-1/4 x 10” rectangular duct (purchased separately) must be used to maintain maximum airflow efficiency.
- Always use rigid type metal/aluminum ducts if available to maximize airflow when connecting to provided duct.
- Please use *Duct Run Calculation* below 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 8” to 9” or 10”. If a reducer is used, install a long reducer instead of a pancake reducer. Reducing duct size will restrict airflow and decrease airflow, thus reduce duct size as far away from opening as possible.
- If turns or transitions are required: Install as far away from opening and as far apart, between 2, as possible.
- Minimum mount height between stove top to hood bottom should be no less than 28-inch*.
- Maximum mount height between stove top to hood bottom should be no higher than 31-inch*.
- 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 loose its performance and efficiency.
- If available, also refer to stove top manufacturer’s height clearance requirements and recommended hood mounting height above range.

  * Due to different ceiling height configurations, recommended height may not be applicable.

Minimum Duct Size:

- Round - 6” minimum
- Rectangular - 3-1/4 x 10” minimum (requires a 8” to 3-1/4x10” adaptor, not supplied)

Calculating Vent System Length

To calculate the length of the system you need, deduct the equivalent feet for each vent piece used in the system from the recommended maximum duct run.

Duct Run Calculation:	
Recommended maximum run	
8” or 3-1/4 x 10” duct	50 ft
Vent piece deduction	
Each 90º elbow used	9 ft
Each 45º elbow used	5 ft
Each 8” to 3/14 x 10” transition used	7 ft
Side wall cap with damper	0 ft
Roof cap	0 ft

Duct Run Calcuation example:

One roof cap, two 90º elbow, and one 45º elbow used:

0ft + 9ft + 9ft + 5ft = 23ft used.

Deduct 23ft from 50ft, 27ft maximum available for straight duct run.

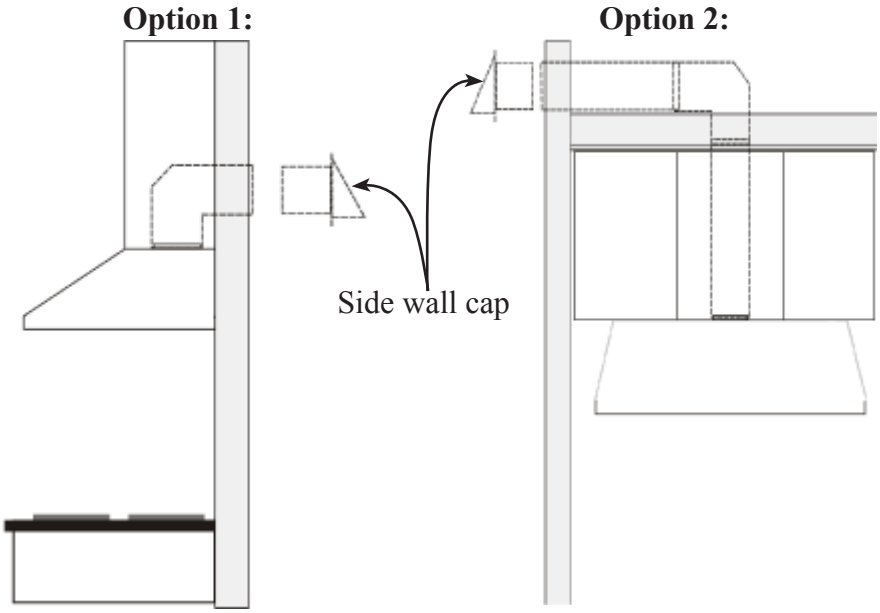
Venting Methods

- This range hood is factory set for venting through the roof or wall.
- Vent work can terminate either through the roof or wall. To vent through a wall, a 90° elbow is needed.

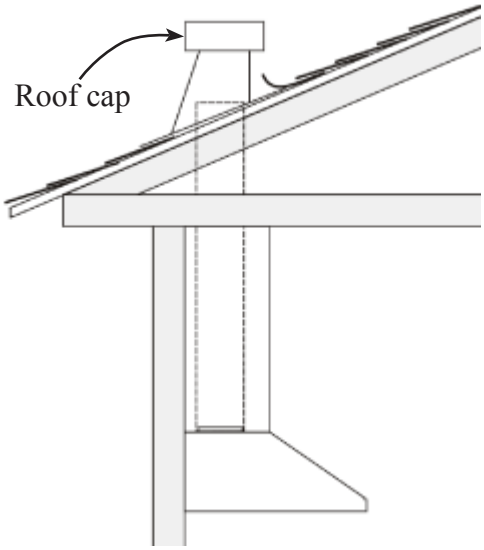
IMPORTANT:

- 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/aluminum duct work only.
- Fasten all connections with sheet metal screws and tape all joints with certified Silver Tape or Duct Tape.
- Use caulking to seal exterior wall or roof opening around the cap.

Horizontal wall venting



Vertical roof venting



Electrical Requirements

IMPORTANT: For Europe and Other Countries with 220~240V/50Hz, please observe your local 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.
A 110~120V/60Hz, AC-only, fused electrical supply is required on a separate 15-amp circuit, fused on both sides of the line.
Do not ground to a gas pipe.
Check with a qualified electrician if you are not sure that the range hood is properly grounded.
Do not have a fuse in the neutral or ground circuit.

IMPORTANT: Save Installation Instructions for electrical inspector's use.

The range hood must be connected with copper wire/plug only.
The range hood should be connected directly to the fused disconnect (or circuit breaker) box through flexible armored or non-metallic sheathed copper cable. A U.L. - or C.S.A. - listed strain relief must be provided at each end of the power supply cable.

Wire sizes (COPPER WIRE ONLY) and connections must conform with the rating of the appliance as specified on the model/serial rating label. Wire sizes must conform to the requirements of the 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. A U.L. - or C.S.A. - listed conduit connector must be provided at each end of the power supply cable (at the range hood and at the junction box).

Copies of the standards listed may be obtained from:

* National Fire Protection Association
Batterymarch Park
Quincy, Massachusetts 02269

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

Preparation

Advanced Preparations:

WARNING
Excessive Weight
Require three or more person to move and install this range hood. Spinal or other bodily injuries could occur if it is not followed.

1. Be familiar with the controls of the range hood by reading through ***Range Hood Operations,*** Page 12.
2. Place the range hood on a flat, stable surface. Connect the range hood to a designated standard outlet, 110~120V/60Hz (220~240V/50Hz for Europe & other countries), AC only and turn on the range hood. Verify all operations of the range hood by referring to ***Range Hood Operations,*** Page 12.
3. Place all supplied parts and required hardware on a flat, stable surface and verify the existence of all supplied parts listed on Page 4.
4. Carefully remove the white plastic protective coat from the chimney covers and range hood.

Preparations:

1. Determine and mark the center line on the ceiling where the range hood will be installed. Make sure there is proper clearance within the ceiling or wall for exhaust vent.
2. Due to the weight and size of this unit, please make sure that the support system or framework being used is stable and secure in the wall.
3. Put a thick, protective covering over counter top, cook top or range to protect from damage or dirt. Remove any hazardous objects around the area when installing.
4. Mark the locations of the support mounting bracket holes, vent cutout (if used) and power supply cable cutout on the ceiling. Use drill and saber saw or keyhole saw to cut openings for power supply cable and vent (see ***Venting requirements*** and ***Electrical requirements***, Pages 5-8).
5. If venting to the outside install vent system (see ***Venting Requirements***, Page 5). Use caulking to seal exterior wall or roof openings.
6. Disconnect main electrical supply, prepare and run electrical wiring through ceiling or wall. Leave approximately 12” of electrical cord hanging from the ceiling. Do not restore power until wiring is completed.
7. Disconnect power cord, remove the stainless steel filters by pulling down toward the direction of solid arrow while holding both of the metal handles, gently pull the stainless steel filters toward the direction of dashed arrow as shown in Figure 1.
8. Remove the grease cup by sliding it sideway, see Figure 2 for location of the grease cup.
9. Set aside the stainless steel filters and grease cup until the range hood is properly installed.
10. *If the range hood comes with a glass canopy and has not already been mounted to the hood, loosen the four canopy screws and washers from the hood top, carefully place the canopy on the hood top, and loosely tighten the four canopy screws along with washers. DO NOT put excessive pressure against the glass.*

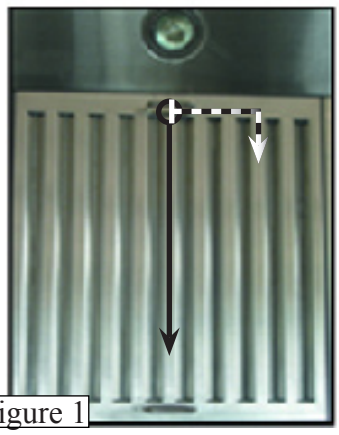


Figure 1

Figure 2

WARNING
Severe Injury
Rotating fan can cause severe injury. Stay clear of fan when motor is running.

Installation

Installations (refer to page 4 & 11 for parts)**:**

1. Measure the distance between stove top and the bottom of range hood. A distance of 28” to 31” is required.
2. Make sure the range hood is level and not tilted. Mark the locations of the hanging bracket holes on the wall as shown in Figure 3A and Figure 3B.
3. Place the mounting bracket **directly** above the range hood, level it, and mark the locations of the mounting bracket holes on the wall.
4. Place aside all equipments, locate marked regions and drill holes. Attach range hood to wall using anchors recommended for your type of wall:
   - Sheet rock wall: Attach range hood to stud blockings if possible. If stud blockings are not available, it is required to build a supporting structure behind the sheet rock for best weight support.
   - Concrete wall: Use designated screws (not provided).
   - Wood wall: Use at least 5 cm long wood screws (not provided).
6. Fasten two Type “A” anchors (for range hood and for mounting bracket or air diverter) on the wall as shown in Figure 4. Loosely fasten two Type “B” screws onto anchors, DO NOT fasten screws all the way. Hang the range hood on the Type “B” screws and hand tighten them. Leave approximately 1/8” of gap from the wall to the range hood.
7. Place the mounting bracket against the wall and align the holes from mounting bracket with holes from Type “A” anchors, fasten two Type “B” screws through the holes onto the anchors as shown in Figure 5. Leave approximately 1/8” of gap from the wall to the mounting bracket.

Figure 3A

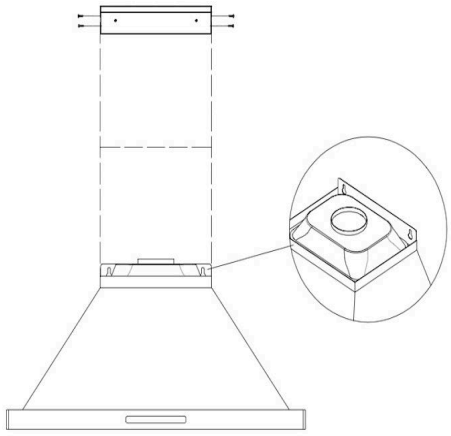


Figure 4

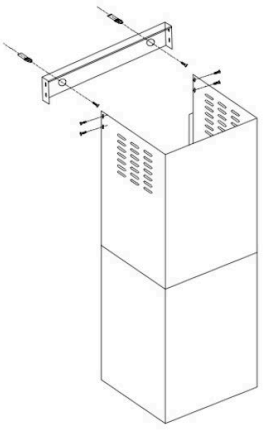
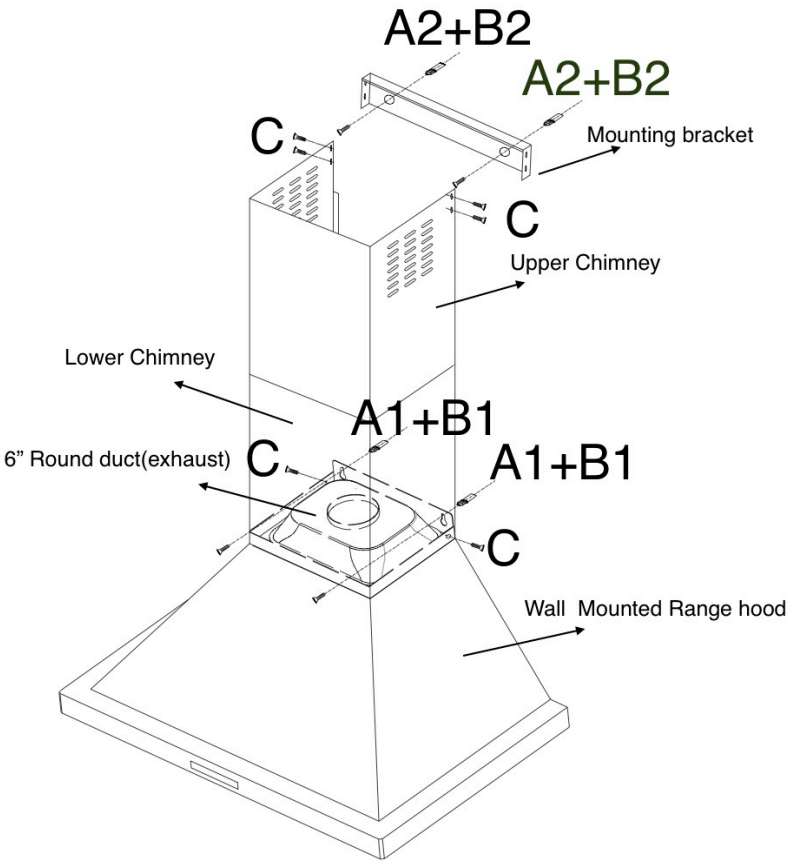


Figure 3B

Figure 5

Installation (Continued)

8. Calculate the height of the duct tube and extend approximately 6” (15 cm) longer than required, connect the lower end of the duct tube to the range hood and the upper end to the vent system. Make sure the main electrical supply remains disconnected then connect power plug to the electrical cord or wall plug.
9. Have one person carefully position both upper and lower chimneys on the range hood, let the second person slide the sides of the chimneys into the 1/8” gap. Fasten both chimneys with four Type “C” screws.
10. Install grease cup and aluminum filters then check the operation of the range hood.



Operation

The first time the power is on, the buzzer rings once, the switch enters the initialization state, the switch is fully displayed, the nixie tube displays 88:88, and the key indicator light is always on. After 3 seconds, the switch will turn off, the nixie tube display will turn off, and the key indicator will turn off.

1. Switch machine

Press [power], switch on, power key indicator light on, digital tube shows time. Press [power] again to turn off the switch, turn off the nixie tube display, and turn off the key indicator

2. Wind speed gear

In the power on state, press [wind speed], the switch will enter 1 crotch, the nixie tube will display F1, and the indicator light of wind speed will always be on. Press [wind speed] again to enter 2 crotch operation, the nixie tube displays F2, and the wind speed indicator light is always on; press [wind speed] again to enter 3 gear operation, the nixie tube displays F3, and the wind speed indicator light is always on. Press [wind speed] again to turn off the fan. The digital tube shows time and the wind speed indicator goes out.

3. Lighting

Press [lighting] to turn on the lighting function, and the lighting indicator will be on. Press again to turn off the lighting function and turn off the lighting indicator. The lighting is not controlled by the power key.

4.Timing

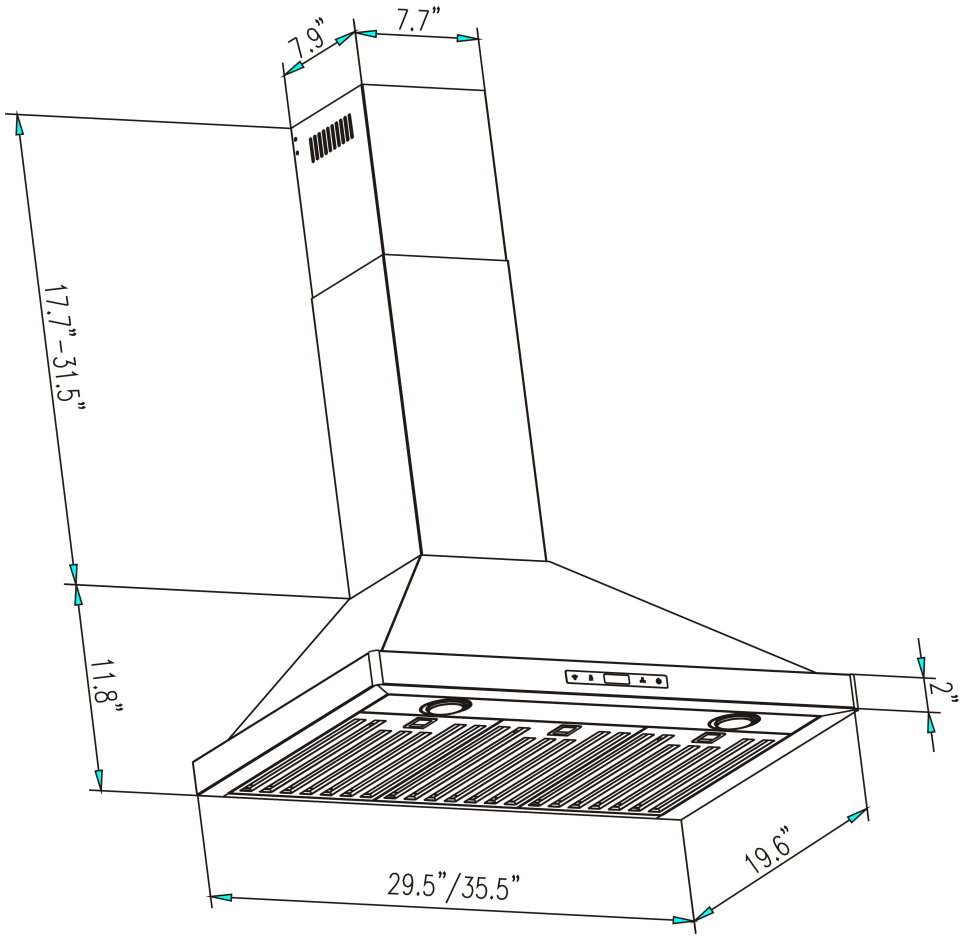
In the power on state, long press [power] for 3 seconds to enter the clock adjustment state. At this time, the clock on the nixie tube flashes, and the indicator lights of lighting and wind speed flash, prompting the customer to press these two buttons to adjust the clock, the adjustment range: 0-23 hours; press [power] again to enter the minute adjustment state, at this time, the minute on the nixie tube flashes, and the fingers of lighting and wind speed The indicator flashes, indicating that you can press these two buttons to adjust the minutes, the adjustment range: 0-59 minutes. Press [power] again to exit the clock adjustment state.

5. Delay

In the wind speed working state, press [power] to enter the delay state, the delay time is 3 minutes by default, the time countdown display on the digital tube, the delay end shutdown, and the lighting is off. Press [power supply] in delay state to shut down.

F. Remote Control Sensor:

1. Remote control sensor receives infrared (IR) signal from the remote control.
   The maximum distance for IR data transmission is 10 feet and requires direct line of sight.
   The transmission distance may vary depending on temperature and remote control battery condition.
2. Light settings are independent from other settings (including power- off delay) and lights have to be manually turned on or off.
3. The system saves user configurations, settings such as light,timer and blower(motor) speed will returned on.



Troubleshooting

1. If the range hood does not operate after installation:
   - Check if the range hood has been plugged in, make sure that all power has been turned back on and all electrical wiring are properly connected.
   - Swap out light assembly to working ones to determine whether it is caused by defective bulbs. (See *Replacing the light bulbs*, page 16)

2. The range hood vibrates when the blower is on:
   - The range hood might not have been secured properly on to the ceiling.

3. The blowers seems weak:
   - Check that the duct sized used is at least 8” (20 cm). Range hood WILL NOT function efficiently with insufficient duct size. For example: 10” (25.4 cm) duct over 8” (20 cm) hole and loosely secured.
   - Check if duct is clogged or if damper unit is not opening properly. A tight mesh on a side wall cap unit might also cause restriction to the air flow.

4. The lights work but the blower is not spinning at all, is stuck or is rattling.
   - The blower might be jammed or scraping the bottom due to shipping damage.

5. The hood is not venting out properly:
   - Make sure the distance between the cook top and the bottom of the hood is within 28” (71 cm) and 33” (79 cm) in range.
   - Reduce the number of elbows and length of duct work. Check if all joints are properly connected, sealed, and taped.
   - Make sure the power is on high speed for heavy cooking

NOTE: *For all other inquiries, please contact your local reseller.*

Maintentance&Clean

Caution: Unplug or disconnect the appliance from the power supply before servicing.

GREASE FILTER

* The grease filters should be cleaned frequently (every two months of operation, or more frequently for heavy use). Use a warm detergent solution.

* Grease filters are washable.

Remove the grease filters from the hood. Wash the filters, taking care not to bend them. Allow them to be dry before refitting.

When refitting the filters, make sure that the handle is visible from the outside.

reinstall the grease filters to the hood.

HOOD CLEANING

Stainless steel is one of the easiest materials to keep clean. Occasional care will help preserve its fine appearance.

Cleaning tips:

* Hot water with soap or detergent is all that is usually needed.

* Follow all cleaning by rinsing with clear water. Wipe dry with a clean, soft cloth to avoid water marks.

* For discolorations or deposits that persist, use a non-scratching household cleanser or stainless steel polishing powder with a little water and a soft cloth.

* For stubborn cases use a plastic scouring pad or soft bristle brush together with cleanser and water. Rub lightly in direction of polishing lines or " grain" of the stainless finish. Avoid using too much pressure that may mar the surface.

* Do not allow deposits to remain for long periods of time.

* Do not use ordinary steel wool or steel brushes. Small bits of steel may adhere to the surface causing rust.

* Do not allow salt solutions, disinfectants, bleaches, or cleaning compounds to remain in contact with stainless steel for extended periods. Many of these compounds contain chemicals that may be harmful. Rinse with water after exposure and wipe dry with a clean cloth.

* Painted surfaces should be cleaned with warm water and mild detergent only.

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