

Range Hood

Installation & User Manual

NK30CB700W**/NK36CB700W**



SAMSUNG

Contents

Important Safety Instructions	3
--------------------------------------	----------

Installation Requirements	7
----------------------------------	----------

General Specifications	7
Mounting Height	7
Venting Methods	8
Parts List	8
Sub-Parts List	9
Additional Purchase Accessories	9
Needed Parts list (Not Supplied)	9
Installation Clearances	10
Making a hole in the furniture	10

Installation	11
---------------------	-----------

Setting the Location	11
Connecting the Vent System	12
Installing the Range Hood	13
Electrical Connection	14
Connect the filter support cable	17
Installing the Recirculation Kit	17
Electrical Connection	18

Range Hood Description	21
-------------------------------	-----------

Range Hood Overview	22
----------------------------	-----------

Button panel	22
--------------	----

Using the Range Hood	22
-----------------------------	-----------

Display	22
Turning the Range Hood On or Off	23
First Use Guide	23
Changing the operation mode	24
Smart mode	24

Activates/Deactivates Boost mode	25
Makeup Air	25
Using the lighting	26
Checking air quality	26
Filter cleaning reminder	27
Wi-Fi On/Off	27
Smart ventilation mode	28
Automatic operation to prevent range hood overheating	28
Language setting	29
Entering AP(Access Point)	29
AI Energy Mode	30
Bixby	30
Amazon Alexa & Google Assistant	30
Installation Guide	30

Cleaning and Maintenance	31
---------------------------------	-----------

Cleaning the range hood	31
Cleaning the sensor unit	31
Cleaning the Filters	32
Replacing the LED Lamp	32

SmartThings app	32
------------------------	-----------

Open Source Announcement	34
--------------------------	----

Troubleshooting	34
------------------------	-----------

General	34
Hood Operation	34
Information codes	35

Warranty (USA)	36
-----------------------	-----------

Warranty (CANADA)	37
--------------------------	-----------

Important Safety Instructions

APPROVED FOR RESIDENTIAL APPLIANCES FOR RESIDENTIAL USE ONLY
READ AND SAVE THESE INSTRUCTIONS

PLEASE READ THE ENTIRE INSTALLATION GUIDE BEFORE PROCEEDING.
INSTALLATION MUST COMPLY WITH ALL LOCAL CODES.

IMPORTANT: Save these instructions for the local electrical inspector's use.

INSTALLER: Please leave these Instructions with this unit for the owner.

OWNER: Please retain these instructions for future reference.

Symbols used in this manual

WARNING

Hazards or unsafe practices that may result in severe personal injury or death.

CAUTION

Hazards or unsafe practices that may result in electric shock, personal injury, or property damage.

NOTE

Useful tips and instructions

These warning icons and symbols are here to prevent injury to you and others.
Please follow them explicitly. After reading this section, keep it in a safe place for future reference.

WARNING

Turn off the power circuit in the service panel and lock out panel before wiring this appliance.

Installation requires a branch circuit of 120 VAC, 60 Hz, and 15 or 20 A.

WARNING

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

- Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
- Before servicing or cleaning the unit, switch the power off at the service panel and lock the service panel to prevent the power from being switched on accidentally. If the service panel cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
- The installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
- Sufficient air is needed for proper combustion and the exhausting of gases through the flue (chimney) of the fuel burning equipment to prevent backdrafting. Follow the heating equipment manufacturer's guidelines and safety standards, such as those published by the National Fire Protection Association (NFPA), the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.
- When cutting or drilling into the wall or ceiling, do not damage electrical wiring or other hidden utilities.
- Ducted fans must always be vented outdoors.

CAUTION

For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.

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 enclosed within walls, ceilings, attics, or into crawl spaces or garages.

WARNING

TO REDUCE THE RISK OF FIRE, USE ONLY METAL DUCTWORK.

Important Safety Instructions

⚠ WARNING

TO REDUCE THE RISK OF A RANGE TOP GREASE FIRE:

- 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.
- Always turn the hood ON when cooking at high heat or when flambeing food (i.e. Crepes Suzette, Cherries Jubilee, Peppercorn Beef Flambé).
- Clean ventilating fans frequently. Grease should not be allowed to accumulate on the fan or filter.
- Use proper pan sizes. 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 PRECAUTIONS:*

- 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.
- NEVER PICK UP A FLAMING PAN - you may get burned.
- 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 ABC extinguisher, and you already know how to operate it.
 - The fire is small and contained in the area where it started.
 - The fire department is being called.
 - You can fight the fire with your back to an exit.

* Based on "Kitchen Fire Safety Tips" published by NFPA.

⚠ WARNING

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

⚠ WARNING

Do not let children near this appliance. Do not let children play with this appliance. Keep all packaging materials out of children's reach. Properly dispose the packaging materials after this appliance is unpacked.

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 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.

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 copy of the above code standards can be obtained from:

National Fire Protection Association

1 Batterymarch Park
Quincy, MA 02169-7471
CSA International
8501 East Pleasant Valley Road
Cleveland, OH 44131-5575

- A 120 volt, 60 Hz., AC only, 15-amp, fused electrical circuit is required.
- If the house has aluminum wiring, follow the procedure below:
 1. Connect a section of solid copper wire to the pigtail leads.
 2. Connect the aluminum wiring to the added section of copper wire using special connectors and/or tools designed and UL listed for joining copper to aluminum.
- Follow the electrical connector manufacturer's recommended procedure. Aluminum/copper connections must conform with local codes and industry accepted wiring practices.
- Wire sizes and connections must conform with the rating of the appliance as specified on the model/serial rating plate. The model/serial plate is located behind the filter on the rear wall of the range hood.
- 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).

GROUNDING INSTRUCTIONS

This appliance must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current.

WARNING

- Improper grounding can result in a risk of electric shock.
- Consult a qualified electrician if the grounding instructions are not completely understood, or if doubt exists as to whether the appliance is properly grounded.
- Do not use an extension cord.

Venting Requirements (ducted models only)

- The vent system must terminate outdoors.
- Do not terminate the vent system in an attic or other enclosed area.
- Do not use a 4" (10.2 cm) laundry-type wall cap.
- Only use metal vents. Plastic vents are not recommended.
- The length of the vent system and the number of elbows should be kept to a minimum to provide efficient performance.

For the most efficient and quietest operation:

- 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.
- Use clamps to seal all joints in the vent system.
- The vent system must have a damper.
- Use caulking to seal the exterior wall or roof opening around the cap.
- The size of the vent should be uniform.

Venting Methods

To use the hood's top outlet to vent your hood, a 6" (15.2 cm) round vent system is required. To use the hood's rear outlet, a ¾" x 10" (8.25 x 25.4 cm) rectangular vent system is required. Neither of these vent systems are included and must be purchased separately.

NOTE

The vent system can terminate either through the roof or a wall. To vent through a wall, a 90° elbow is needed.

Mounting Height

Select a mounting height between a minimum of 24" (61 cm) for an electric cooking surface, a minimum of 27" (68.6 cm) for a gas cooking surface, and a suggested maximum of 36" (91.4 cm) above the range to the bottom of the hood.

Rear discharge

A 90° elbow may be installed immediately above the hood.

For Non-Vented (recirculating) Installations

If it is not possible to vent cooking fumes and vapors to the outside, the hood can be used in the non-vented (recirculating) version, fitting a charcoal filter and a plastic grid. Fumes and vapors are recycled through the recirculation grid.

Important Safety Instructions

1. FCC Notice

FCC STATEMENT:

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this microwave oven. It is the responsibility of the user to correct such interference.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

WARNING

Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC RF Exposure Requirements

This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter and must be installed to provide a separation distance of at least 20 cm from all persons.

2. IC Notice

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- 1) This device may not cause interference.
- 2) This device must accept any interference, including interference that may cause undesired operation of the device.
 - CAN ICES(B)/NMB(B)

IC RADIATION EXPOSURE STATEMENT:

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated so there is at least 8 inches (20 cm) between the radiator and your body. This device and its antenna(s) must not be co-located or operated in conjunction with any other antenna or transmitter.

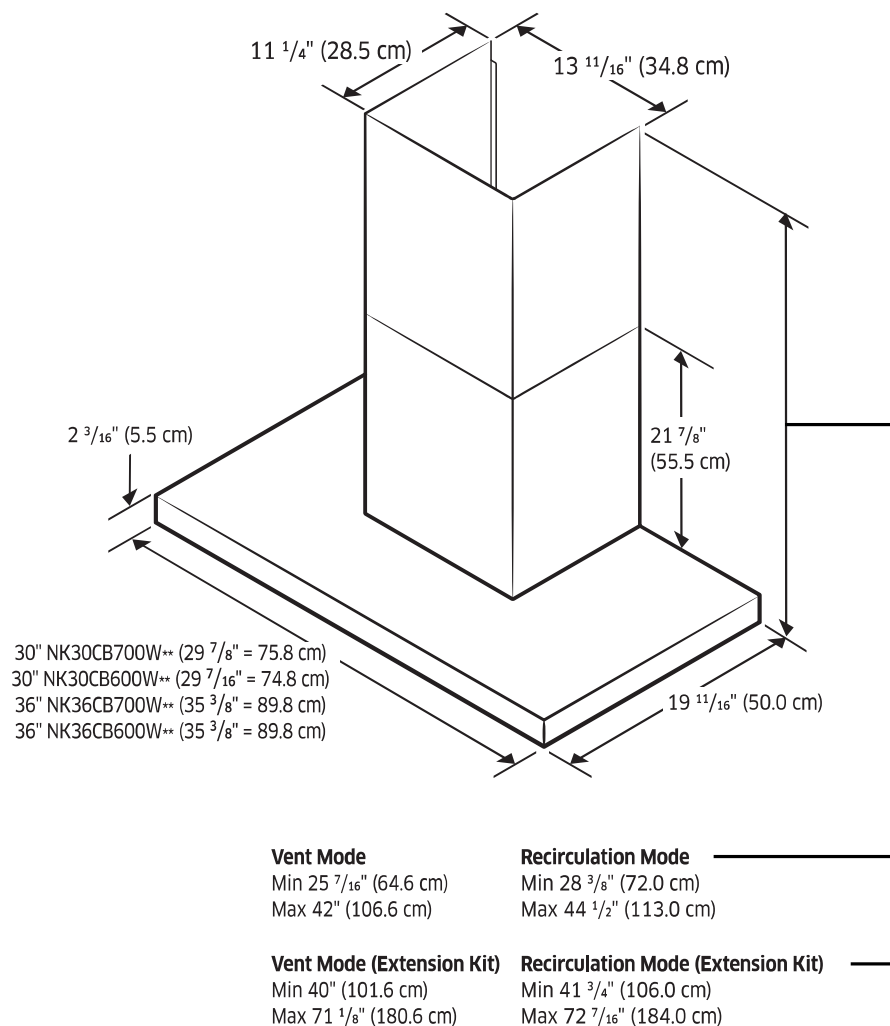
State of California Proposition 65 warning (US only)

WARNING

This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Installation Requirements

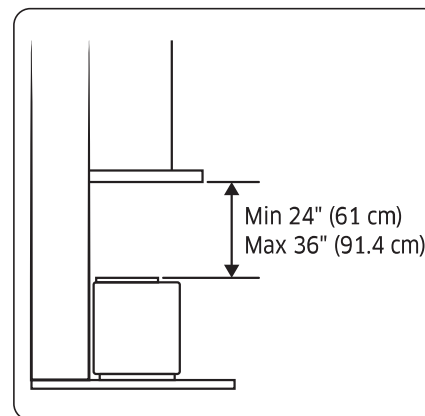
General Specifications



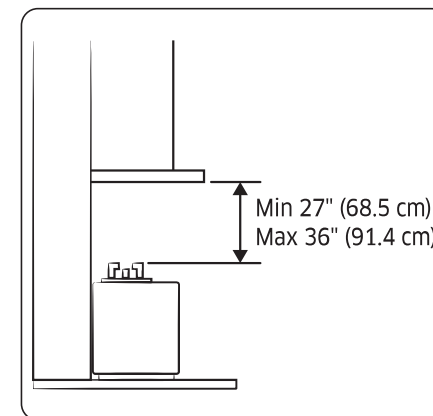
Mounting Height

⚠ CAUTION

- Be sure to check the mounting height before installing the product.
- The mounting height is measured from the top of the range to the upper cabinets. The mounting height for an electric cooking surface is measured from its glass cooktop as shown in the image on the left. For a gas cooking surface, the mounting height is measured from the top of the burning grates as shown in the image on the right.



ELECTRIC RANGES

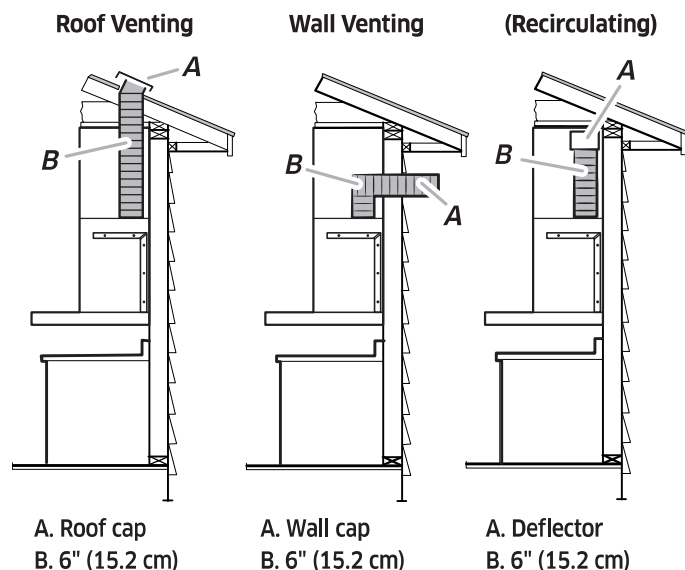


GAS RANGES

Installation Requirements

Venting Methods

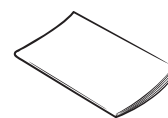
Smoke is exhausted to the outside through a special pipe connected to the hood.



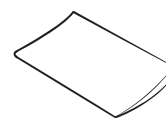
CAUTION

- The minimum connectable exhaust outlet diameter is 6" (15.2 cm).
- Ensure the exhaust outlet diameter and duct diameter match, and then connect the duct to the wall outlet.
- If the duct and the wall outlet have different diameters, the suction performance will decrease while also significantly increasing noise. The manufacturer is not responsible for any problems caused by this.
- Use the minimum possible length for the duct, and do not significantly alter the cross-section.
- When connecting the duct, minimize bending. (Max bending angle: 90°)
- In an environment where installing with an external venting method is possible, be sure to install only using the external venting method.

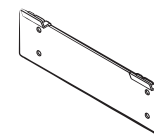
Parts List



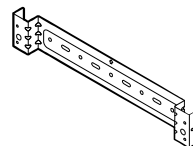
User manual &
Installation manual (2)



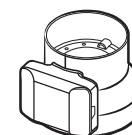
Template for
Installation (1)



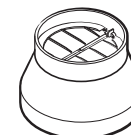
Hood Mounting
Bracket (1)



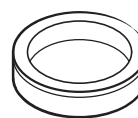
Duct Cover Mounting
Bracket (1)



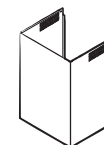
Electric Damper (1)
NK3*CB700W** only



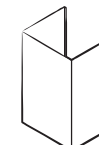
Damper (1)
NK3*CB600W** only



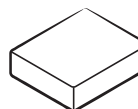
Damper Adapter (1)



Upper Duct Cover (1)



Lower Duct Cover (1)



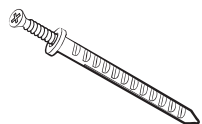
5 mm Magnet (2)



Filter Support Cable * (2)

* To reduce the risk of dropping the filter, assemble the filter wire to the filter.

Sub-Parts List



6 x 130 mm
Screw Anchor (2)



6 x 30 mm
Screw Anchor (7)



4 x 10 mm
Hood Fixing Screw (10)



22 mm Washer (4)

NOTE

Install the product by using the included accessories and materials appropriately and according to the installation environment and conditions.

Additional Purchase Accessories

Model	NK30CB700W**, NK36CB700W**
Recirculation Kit	NK-AR7000WB/AA
Charcoal Filter Kit	NK-AF7000WB/AA
Hood Extension Kit	NK-AE7000W*/AA

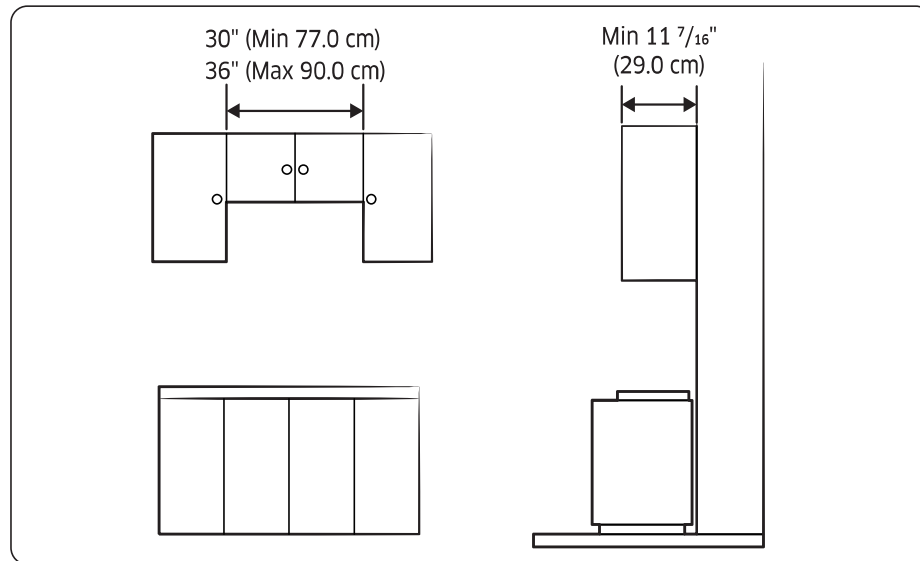
Needed Parts list (Not Supplied)

- Gloves
- Safety Glasses
- Pencil
- Measuring Tape or Ruler
- Tape to installation Template
- Spirit Level
- Phillips Screwdrivers
- Electric Drill and 1/4" (0.6 cm) drill bits
- Pliers
- Wire cutter/Stripper
- Home Power Supply Cable
- UL listed Wire Nuts (3 pcs)
- UL/CSA approved strain relief
- 6" (15.2 cm) Flexible Duct
- Duct Clamps
- Duct Sealing Tape
- Knife
- Caulking Gun and compound
- Jigsaw, Grinder

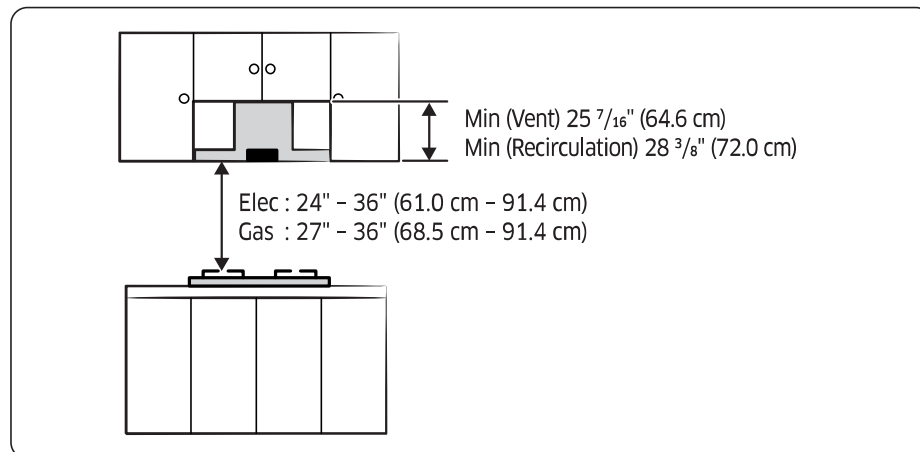
Installation Requirements

Installation Clearances

Upper furniture Dimension



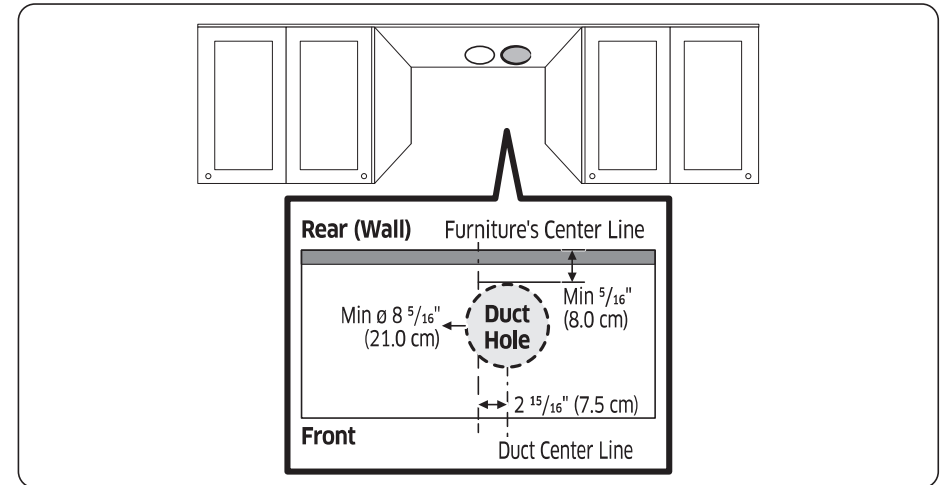
Required Hood installation Height



Making a hole in the furniture

Duct hole guide_Op.1

Cabinet floor drilling work: hood exhaust outlet (damper) cutting work



CAUTION

- Cut the cabinet in a way that does not interfere with the damper outlet.
- After assembling the duct cover, make sure that the cut surface of the cabinet is not exposed. (The hole size must be smaller than the duct cover.)
- Vacuum the sawdust to prevent it from blowing away.
- Make sure the cabinets are not damaged.
- Before cutting the cabinet, explain to the customer that the cabinet needs to be cut, and then obtain consent before proceeding.

Method and sequence of cutting the upper cabinets

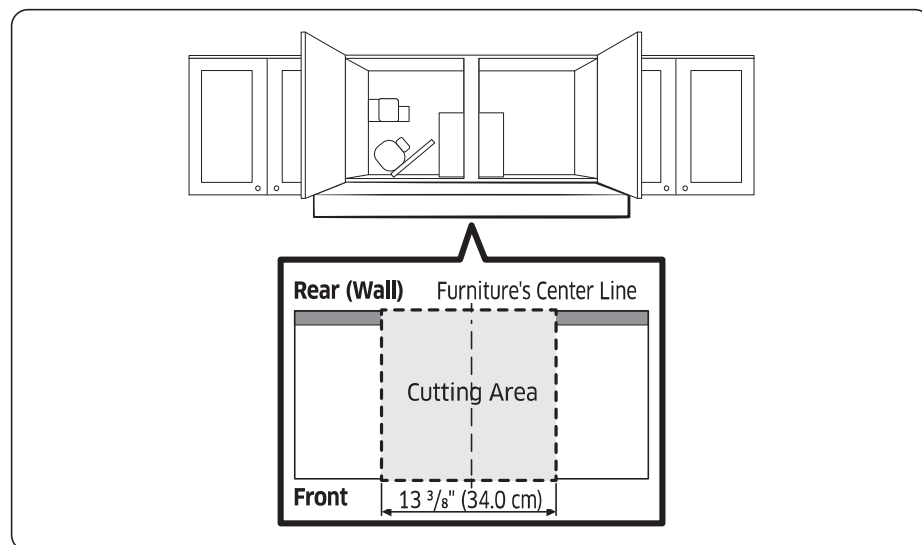
1. Refer to the cutting dimensions above and mark the lines to be cut on the cabinet.
2. Use a jigsaw to cut the upper cabinets. When cutting, use a vacuum cleaner to minimize the amount of dust.

Installation Tool

Jigsaw

Duct hole guide_Op.2

Cabinet floor drilling work: hood exhaust outlet (damper) cutting work



⚠ CAUTION

- Cut the cabinet in a way that does not interfere with the damper outlet.
- Vacuum the sawdust to prevent it from blowing away.
- Make sure the cabinets are not damaged.
- Before cutting the cabinet, explain to the customer that the cabinet needs to be cut, and then obtain consent before proceeding.

Method and sequence of cutting the upper cabinets

1. Refer to the cutting dimensions above and mark the lines to be cut on the cabinet.
2. Use a jigsaw to cut the upper cabinets. When cutting, use a vacuum cleaner to minimize the amount of dust.

Installation Tool

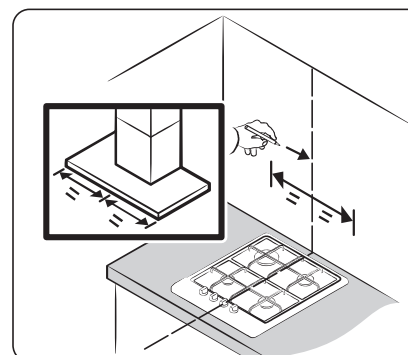
Jigsaw, Grinder

Installation

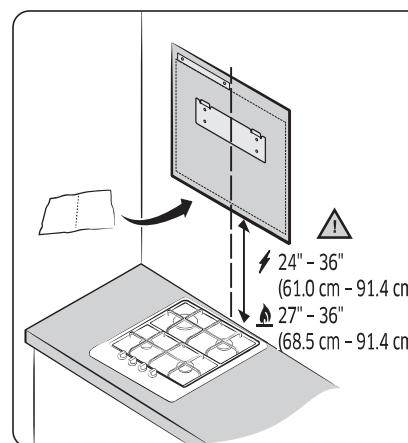
⚠ CAUTION

- This product must be installed by a professional hood installer.
- If the product is installed on a tiled wall or on drywall, there is a risk of the hood falling, so be sure to fix the fixing screws to the concrete behind the wall.
- Do not attach the product as if it were a tile or fix it with cement, silicone, or adhesive. Install it on a concrete wall using the provided screws.

Setting the Location



1. Be sure to check that the product you have purchased is suitable for the installation space you have chosen.

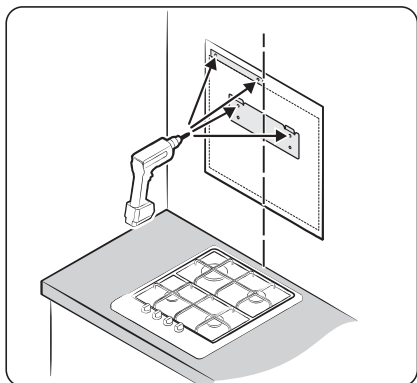


2. Fix the enclosed installation template and then install it so that it does not twist horizontally.

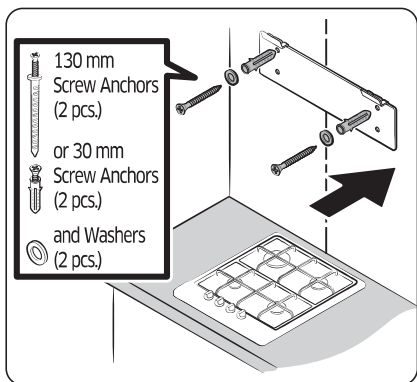
⚠ CAUTION

Please pay attention to the mounting height. The mounting height is measured from the top of the range to the upper cabinets. The mounting height for an electric cooking surface is measured from its glass cooktop. For a gas cooking surface, the mounting height is measured from the top of the burning grates.

Installation



3. Check the position for fixing the hood mounting bracket.

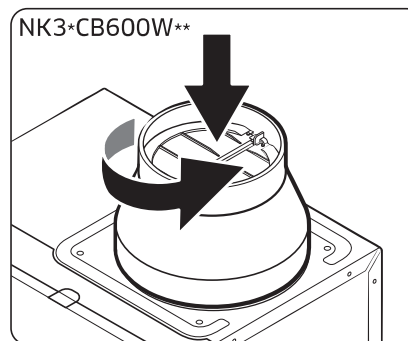


4. Fix the hood mounting bracket horizontally on the wall where the hood is to be installed using screw anchors, hood mounting bracket screws, and washers. Be sure to install it on the wall using the two 30 mm screw anchors.

NOTE

For a secure hold, use a 130 mm screw anchor.

Connecting the Vent System



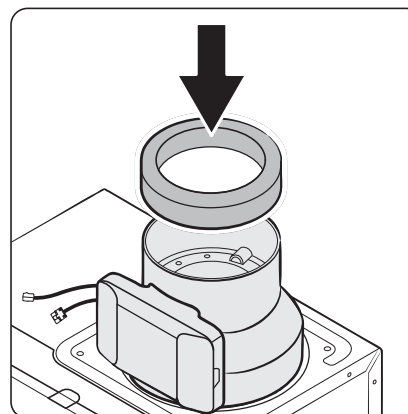
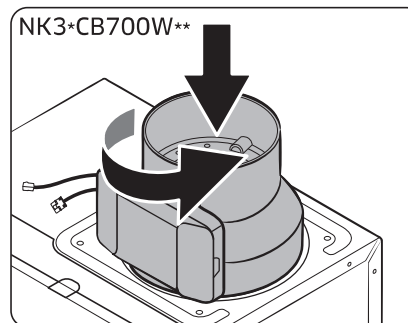
5. Assemble the damper or the electric damper for preventing backflow by turning it in to the hood exhaust outlet.

NOTE

- Damper is provided in NK3*CB600W**.
- Electric Damper is provided in NK3*CB700W**.

CAUTION

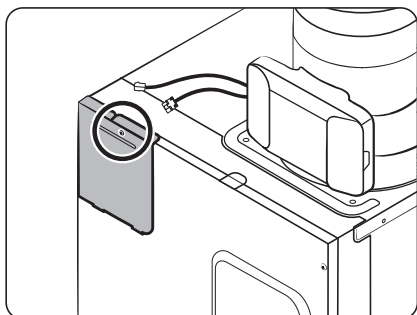
Check that the electric damper is seated correctly on the screw thread and there is no tilt. If the electric damper is not flush, air will leak through the gap.



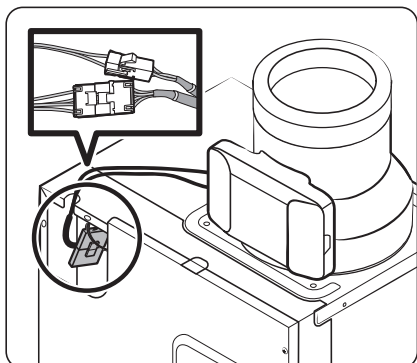
6. Assemble the damper adapter, pushing it into a damper or electric damper. Fix it using tape.

NOTE

- If the hood is NK3*CB600W**, please follow it from No.10.
- If the hood is NK3*CB700W**, please follow it from No.7.



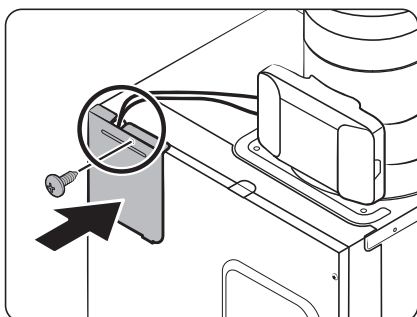
7. Remove the cover by loosening the screw on the PCB cover.



8. Connect the connector of the electric damper wire and the PCB connector.

NOTE

Insert the wire into the hole at the top left corner.

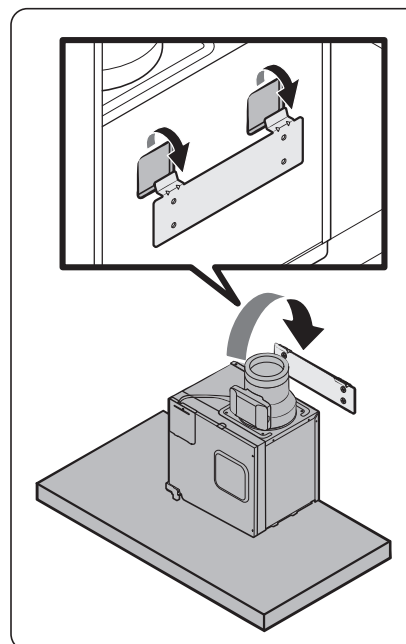


9. Assemble the PCB cover using a screw.

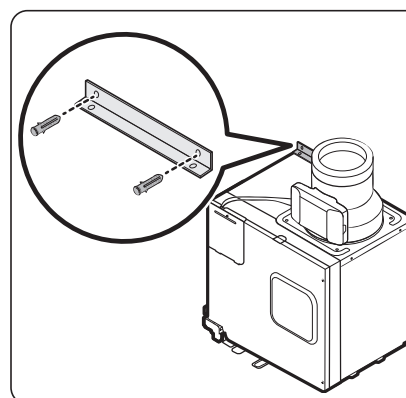
NOTE

Put the connected connector into the hole of the cover as shown in the picture.

Installing the Range Hood

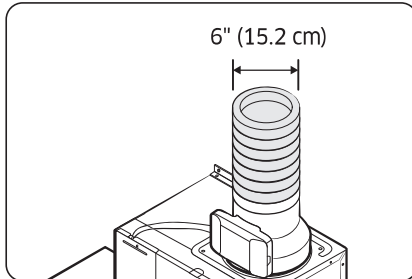


10. Fix the hood to the hood mounting bracket installed on the wall.



11. Fix the duct auxiliary bracket using two 30 mm screw anchors in the top left of the duct.

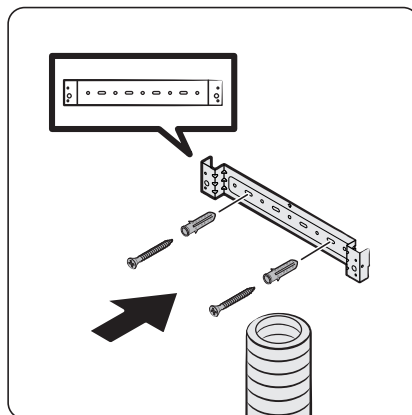
Installation



12. Fix the Flexible Duct (6" (15.2 cm)) to the hood outlet and the vent on the wall, respectively, with tape.

⚠ CAUTION

- Ensure the exhaust outlet diameter and duct diameter match, and then connect the duct to the wall outlet.
- If the duct and the wall outlet have different diameters, the suction performance will decrease while significantly increasing noise. The manufacturer is not responsible for any problems caused by this.
- Use the minimum possible length for the duct, and do not significantly alter the cross-section.
- Minimize bending when connecting the duct (max bending angle: 90 degrees).



13. Fix the duct cover mounting bracket to the ceiling or rear wall with the 30 mm screw anchors.

⚠ CAUTION

- Install the upper duct closely to the ceiling and upper cabinets.
- Be careful not to let the upper duct come into contact with the upper cabinet door.

Electrical Connection

⚠ WARNING

Assembly and electrical connections must be carried out by qualified technician.

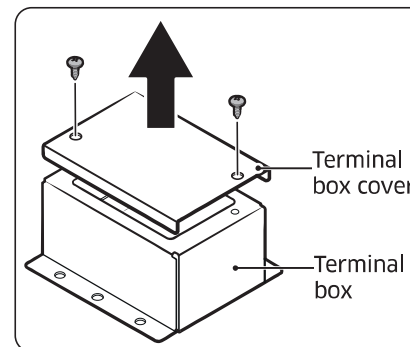
⚠ WARNING



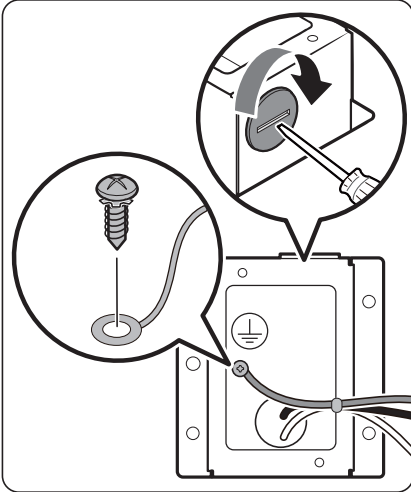
Electrical Shock Hazard

Turn off power circuit at the service panel before wiring this unit. 120 VAC, 15 or 20 Amp circuit required. Failure to do so can result in death or electrical shock.

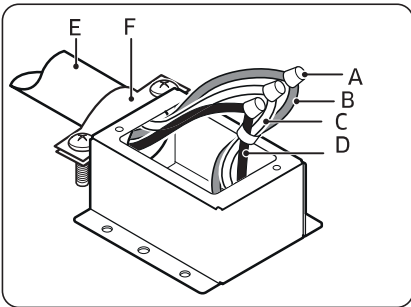
Connect ground wire to Green/Yellow ground wire in terminal box. To protect you against electric shock, The Green/Yellow Wire must be connected to the grounding wire in home electrical system. Failure to do so can result in death or electrical shock. It must under no circumstances be cut or removed.



- 14-1. Disconnect power circuit breaker.
14-2. Remove terminal box cover.

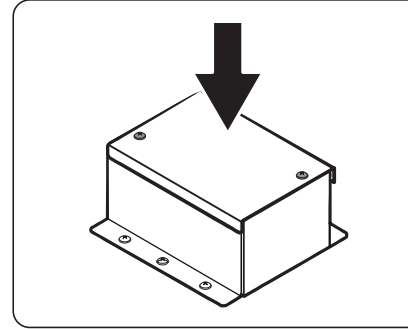


- 14-3. Remove the strain relief hole cover in the terminal box and install a UL/CSA approved strain relief.

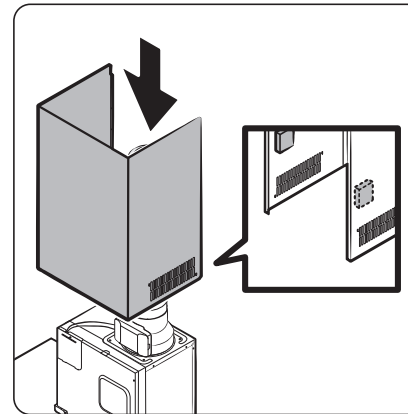


- A. UL listed wire nuts
- B. Green (or bare) wire connected to green/yellow wires
- C. White wires
- D. Black wires
- E. Home power supply cable
- F. UL/CSA approved strain relief

- 14-4. Run home power supply wiring through strain relief into terminal box.
- 14-5. Use UL listed wire nuts and connect white wires (C) together.
- 14-6. Use UL listed wire nuts and connect black wires (D) together.
- 14-7. Connect green (or bare) ground wire from home power supply to the green/yellow ground wire (B) in terminal box using UL listed wire nuts.
- 14-8. Tighten strain relief screw.



- 14-9. Put the wires into the terminal box and install terminal box cover.
- 14-10. Reconnect power circuit breaker.



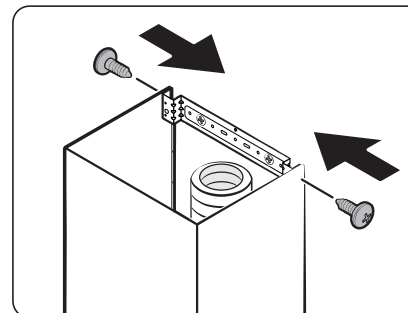
15. Attach each magnet to the inner surface of the upper duct cover overlapping with the lower duct cover, and assemble the upper duct cover in a way that it fits the mounting bracket.

⚠ WARNING

Installation with screws or brackets other than those specified in the instruction of this manual may result in electrical hazards.

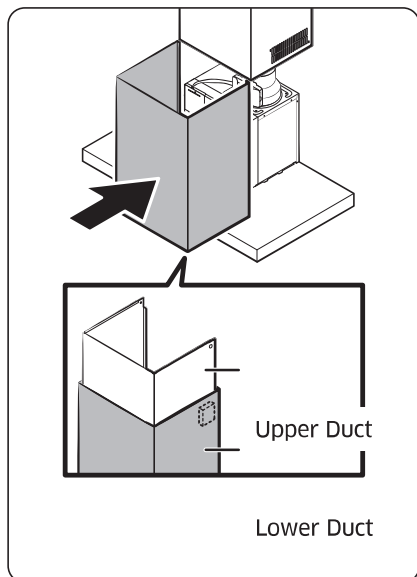
📖 NOTE

Magnets are included in the accessory box.



16. Assemble with 10 mm hood fixing screws from both sides.

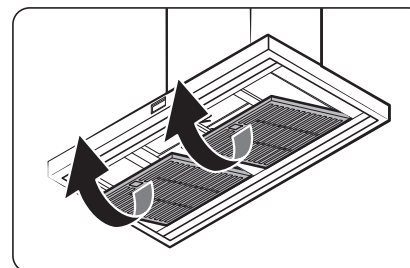
Installation



17. Assemble the lower duct cover to the hood. Magnets on the upper duct cover hold the lower duct cover in place.

NOTE

The magnet must be attached to the upper line of the lower duct.



19. When the lower duct cover assembly is complete, reassemble the filter in the reverse order of disassembly.

NOTE

To install the extension kit, follow same process.

WARNING

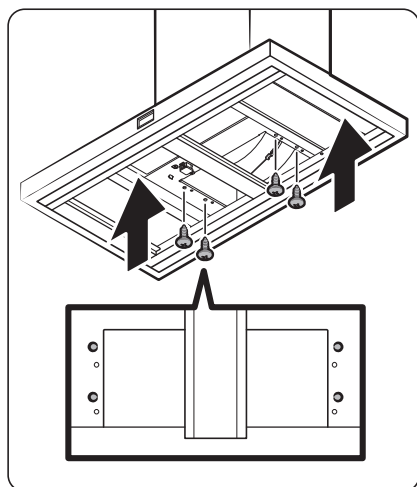
Be sure to use an outlet with a ground terminal for safety. This can prevent the risk of electric shock, fire, or malfunction. If the outlet does not have a ground terminal, purchase a separate grounding wire and connect it to the grounding line.

CAUTION

Do not ground on gas pipes, water pipes, telephone lines, etc.

NOTE

Be sure to install a short-circuit breaker where there is a risk of a short circuit.

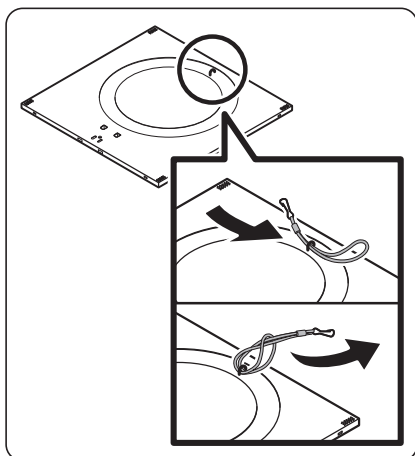


18. Remove the filter at the bottom of the hood.
Assemble the lower duct cover by fitting a 10 mm hood fixing screw to the hole in the lower duct cover.

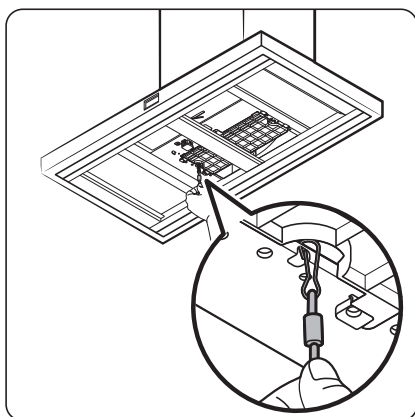
CAUTION

When removing the filter, use both hands to avoid dropping the filter.

Connect the filter support cable



1. Remove the filter at the bottom of the hood. Pass the filter support cable through the wire loop attached on the top of the filter. Make the knot by passing the hook of the filter support cable through the other end of the filter support cable.

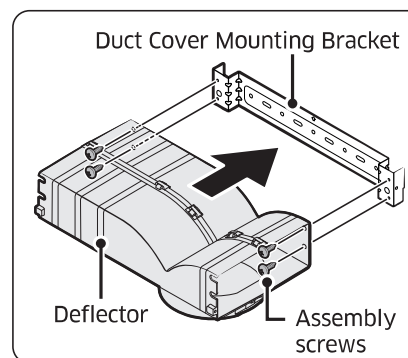


2. Hang the hook of the filter support cable to the anchor at bottom of the hood. Assemble the filter.

Installing the Recirculation Kit

NOTE

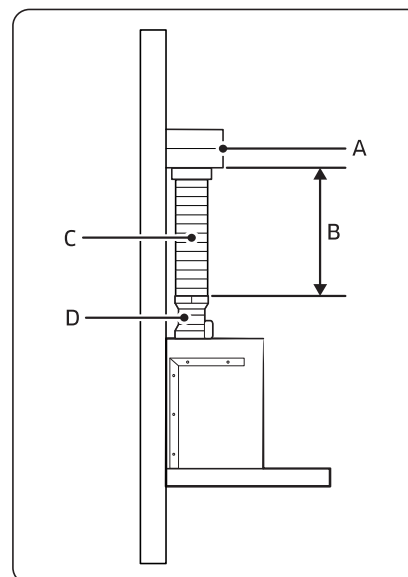
Same process until No. 14



1. Assemble the air deflector with the duct cover mounting bracket with the four assembly screws provided with the Recirculation Kit.

NOTE

- Use of recirculation type hoods in closed spaces may cause poor ventilation performance.
- Please ventilate the room by opening the windows while operating the device.



2. Measure from the bottom of the deflector to the bottom of the hood outlet.
3. Cut the duct to the measured size "X."
4. Remove the deflector.
5. Slide the duct onto the bottom of the deflector.
6. Place the assembled deflector and duct over the exhaust outlet from the hood.
7. Reassemble the air deflector to the duct cover mounting bracket with the four assembly screws.
8. Seal the connections with tape.

A	Deflector
B	X = length to cut duct
C	Duct
D	Exhaust outlet

Installation

Electrical Connection

⚠ WARNING

Assembly and electrical connections must be carried out by qualified technician.

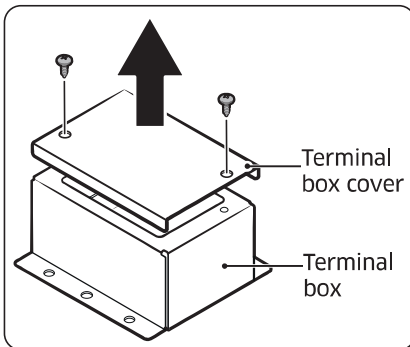
⚠ WARNING



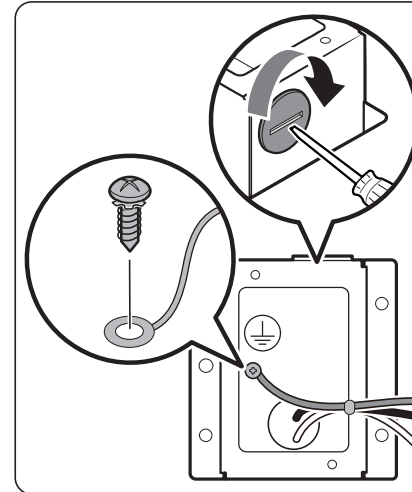
Electrical Shock Hazard

Turn off power circuit at the service panel before wiring this unit.
120 VAC, 15 or 20 Amp circuit required.
Failure to do so can result in death or electrical shock.

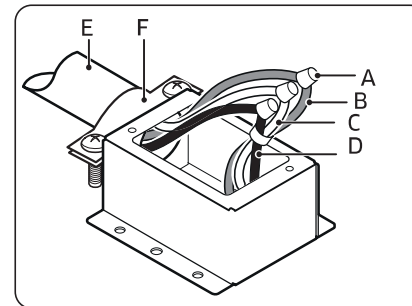
Connect ground wire to Green/Yellow ground wire in terminal box.
To protect you against electric shock, The Green/Yellow Wire must be connected to the grounding wire in home electrical system.
Failure to do so can result in death or electrical shock.
It must under no circumstances be cut or removed.



- 9-1. Disconnect power circuit breaker.
- 9-2. Remove terminal box cover.

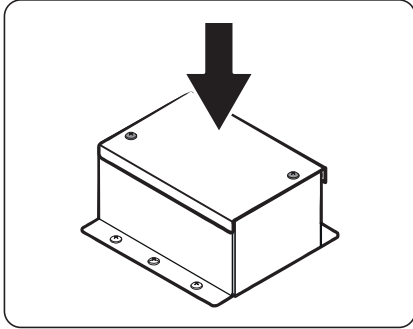


- 9-3. Remove the strain relief hole cover in the terminal box and install a UL/CSA approved strain relief.

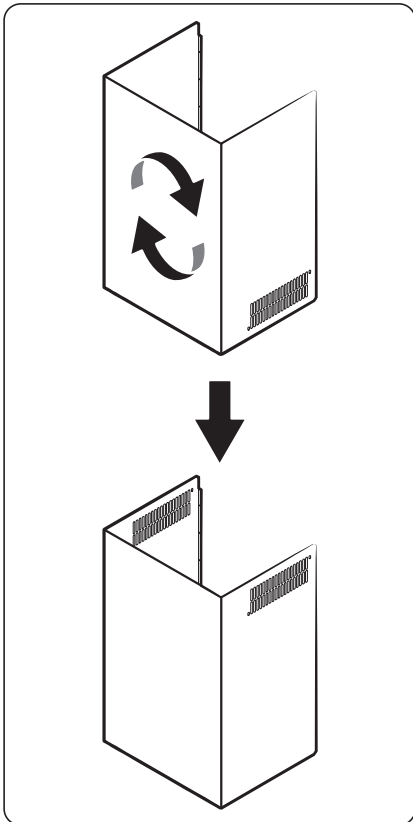


- A. UL listed wire nuts
- B. Green (or bare) wire connected to green/yellow wires
- C. White wires
- D. Black wires
- E. Home power supply cable
- F. UL/CSA approved strain relief

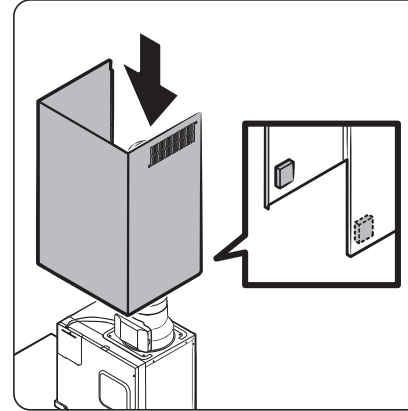
- 9-4. Run home power supply wiring through strain relief into terminal box.
- 9-5. Use UL listed wire nuts and connect white wires (C) together.
- 9-6. Use UL listed wire nuts and connect black wires (D) together.
- 9-7. Connect green (or bare) ground wire from home power supply to the green/yellow ground wire (B) in terminal box using UL listed wire nuts.
- 9-8. Tighten strain relief screw.



- 9-9. Put the wires into the terminal box and install terminal box cover.
- 9-10. Reconnect power circuit breaker.



10. Rotate the upper duct as in the picture.



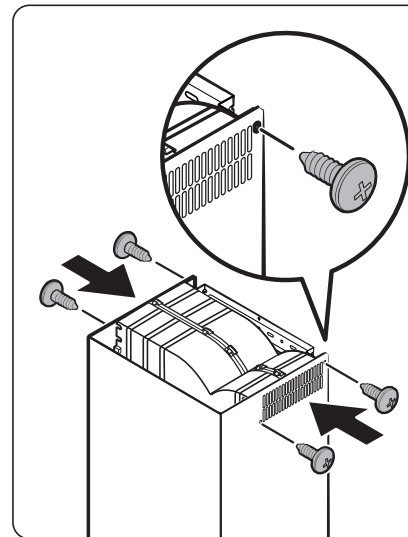
11. Attach each magnet to the inner surface of the upper duct cover overlapping with the lower duct cover, and assemble the upper duct cover in a way that it fits the mounting bracket.

⚠ WARNING

Installation with screws or brackets other than those specified in the instruction of this manual may result in electrical hazards.

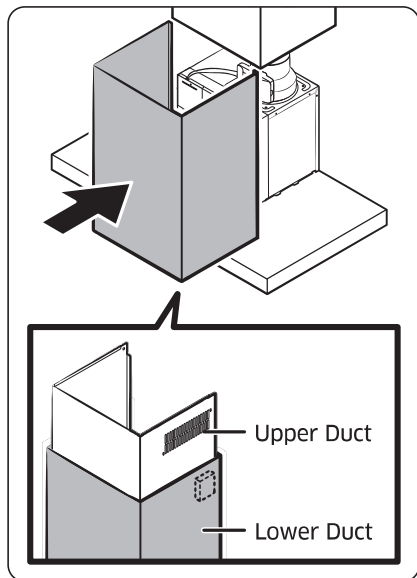
📖 NOTE

Magnets are included in the accessory box.



12. Assemble with 10 mm hood fixing screws from both sides.

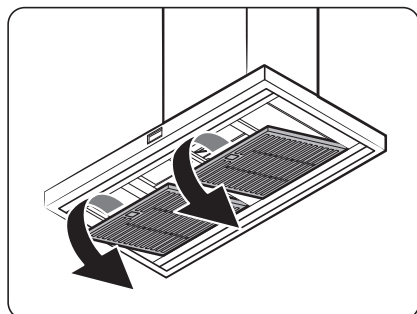
Installation



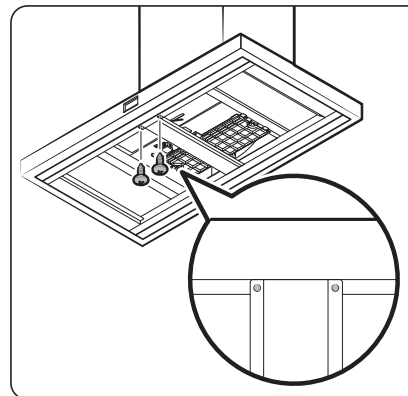
13. Assemble the lower duct cover to the hood. Magnets on the upper duct cover hold the lower duct cover in place.

NOTE

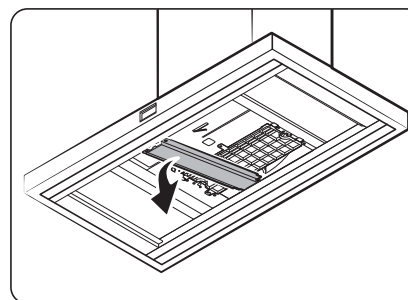
The Magnet must be attached to the upper line of the Lower Duct.



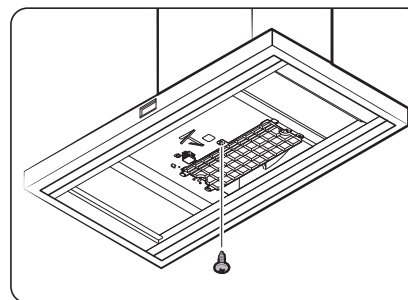
14. Remove metal grease filter from the range hood.



15. Remove the 2 screws from the range hood.

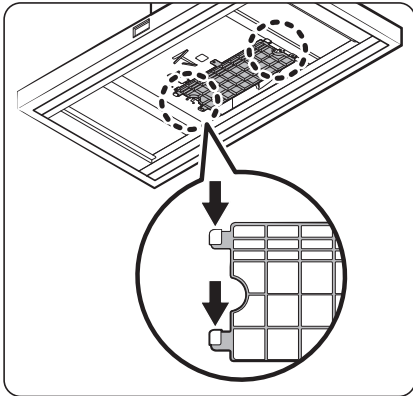


16. Remove the frame middle part from the range hood.

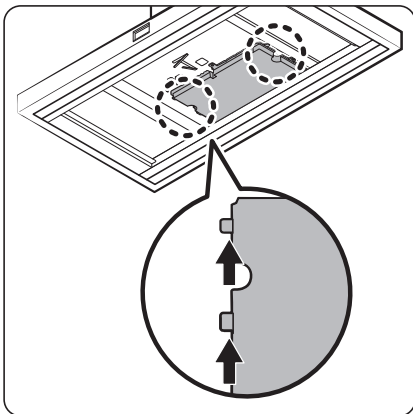


17. Remove one screw from the range hood.

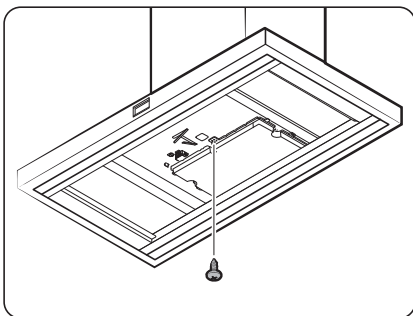
Range Hood Description



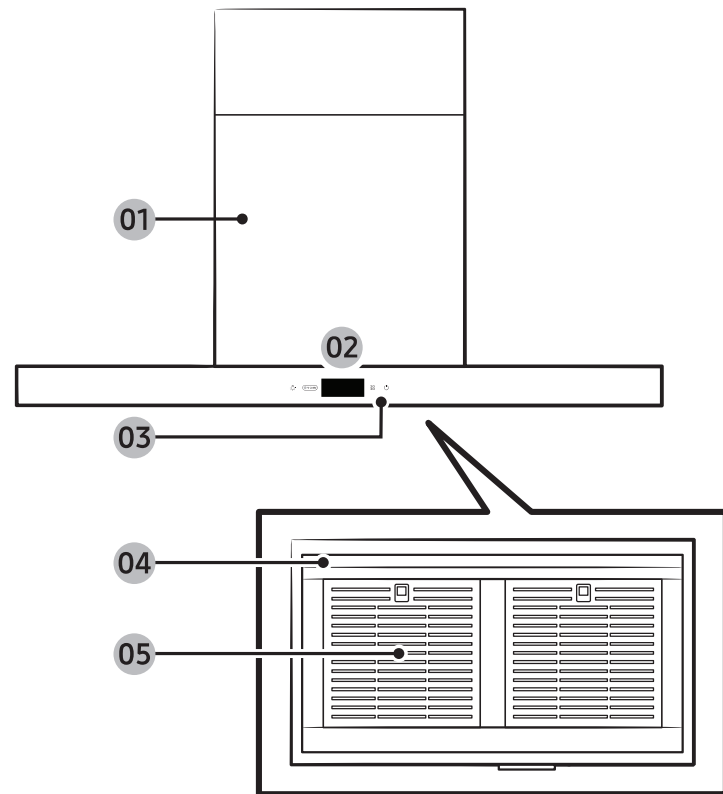
18. Remove the guard by pushing the hook of the guard in the direction of the arrow.



19. Insert the charcoal filter hook by pushing it in the direction of the arrow.



20. Assemble the charcoal filter with the assembly screw provided with the Recirculation Kit. Reassemble the frame middle and filter in the reverse order of disassembly.



01 Duct

04 Lamp

02 Display

05 Filter

03 Button panel

Range Hood Overview

Button panel



01 Light button

- Short press: Changes the light mode (High → Low → Off)
- 3 second press: Resets the filters
- 5 second press: Activates/deactivates the AP

02 Mode button

- Short press: Changes the operation mode (Smart → Low → Medium → High → (Boost) → Smart)
- 3 second press: Language settings (English, Español, Français)
- 5 second press: Deactivates/activates the Wi-Fi
 - Smart ventilation mode can be activated on the SmartThings app.
 - Range Hood can be operated by mobile device or tablet with registered Samsung products on the SmartThings app.
- 10 second press: Activates/deactivates Boost mode

* Mode button + Light button

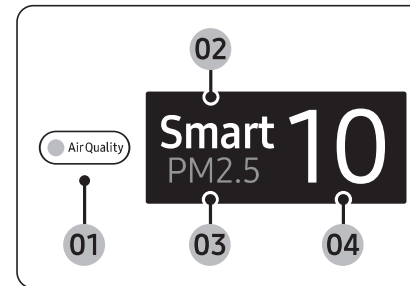
- 3 second press : Changes the default operation mode
 - Smart mode is the initial default mode.

03 Power button

- Short press: Turns the device ON/OFF

Using the Range Hood

Display



01 Shows the PM10, PM2.5, and PM1.0 with color indicators

02 Shows the operation mode

03 Shows the PM10, PM2.5 and PM1.0 status

04 Shows the concentrations of PM10, PM2.5, and PM1.0

NOTE

- PM10: Dust in the air with a diameter of 10 μm or less
 - Fine particles about 1/5 of the diameter of a human hair
- PM2.5: Dust in the air with a diameter of 2.5 μm or less
 - Fine particles about 1/20 of the diameter of a human hair
- PM1.0: Dust in the air with a diameter of 1.0 μm or less
 - Fine particles about 1/50 of the diameter of a human hair

***Diameter of a human hair: 50 - 70 μm**

Turning the Range Hood On or Off



- The device turns on with a chime sound, and starts operation in Smart mode.
 - Immediately after the device starts operation, a welcome message and app linkage reminder are displayed in sequential order. After that, the air quality color, PM levels and operation mode are displayed.
 - Air quality is shown with color indicators: PM10, PM2.5, PM1.0 Concentrations of PM10, PM2.5 and PM1.0 are shown.

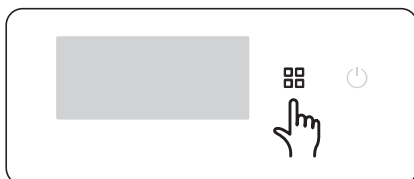
First Use Guide



- When you input in the power for the first time, you will see the first use guide screen.
- Press the [grid icon] button or wait for 7 seconds to see the following instructions.

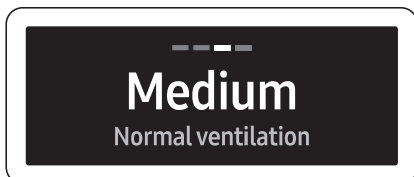
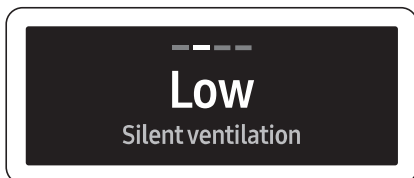
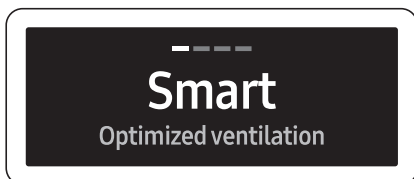
Using the Range Hood

Changing the operation mode

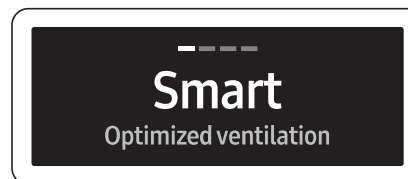


Change the device operation mode as necessary.

- Press the  button to select the operation mode.
 - Each time you press the button, the mode changes in the following order: Smart → Low → Medium → High → (Boost) → Smart
- In Smart mode, the fan speed is automatically adjusted depending on the surrounding dust conditions to keep the kitchen air clean.

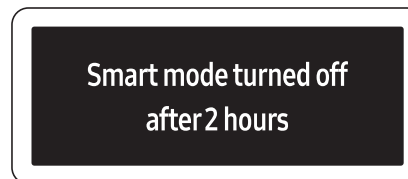


Smart mode



Smart mode is a function that automatically adjusts the wind strength according to the dust in the kitchen.

- In Smart mode, the fan speed is automatically adjusted depending on the surrounding dust conditions to keep the kitchen air clean.
- If the kitchen air quality is bad during Smart mode operation, a notice is displayed and the hood range operates in High mode.
- When the kitchen air quality improves during Smart mode operation, a notice is displayed and a mode suitable for the air quality is enabled.
- If you operate in smart mode for 2 hours, it will be turned off automatically.

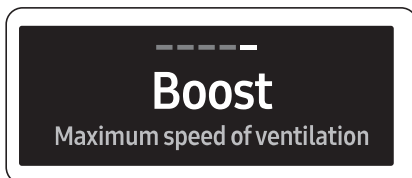
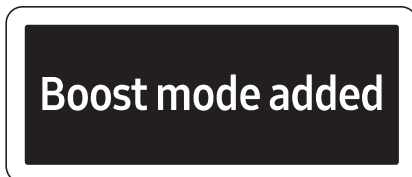


Activates/Deactivates Boost mode



Boost mode is a function that allows powerful exhaust for a short time.

1. Press the  button for 10 seconds.
2. Language Settings mode is displayed. Please keep pressing.
3. Wi-Fi On/Off mode is displayed. Please keep pressing.
4. Boost mode has been added.
5. Boost mode (Max 630 CFM) is available.



Makeup Air

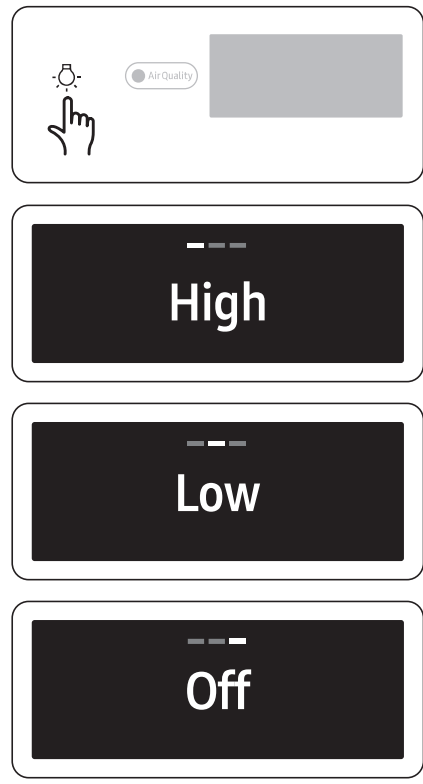
- When using ventilation systems with greater than the specified CFM of air movement, review local building codes as they may require makeup air systems. Consult an HVAC professional for the specific requirements for your area as the CFM requirements can vary between locales.
- Consult an HVAC professional to select the correct CFM capacity range hood for your application. The CFM capacity depends on the range or cooktop BTU rating, size and location, size of the kitchen, and the range hood ductwork in the kitchen.

CAUTION

Do not activate this function without a qualified person present. We recommend that a qualified technician install the range hood. It is the installer's responsibility to ensure that the range hood complies with the installation clearances specified for the product. To activate this function's Boost mode, the Make-up air system is required.

Using the Range Hood

Using the lighting



Adjusting the lighting level of the product.

- Press the button briefly to select the desired lighting level.
 - It cycles in the order of High → Low → Off.

Checking air quality



The concentrations of PM10, PM2.5, and PM1.0 are shown, and the air quality is shown with color indicators that rate the PM10, PM2.5 and PM1.0 levels.

- From among PM10, PM2.5 and PM1.0, the value with the worst air quality is displayed.
 - If all items have low values, the concentrations of PM10, PM2.5 and PM1.0 are displayed in turn for 10 seconds each.

Air quality levels

Pollution level		PM10 concentration (µm/m³)	PM2.5/PM1.0 concentration (µm/m³)
Very poor	Red	151 and over	76 and over
Poor	Yellow	81 ~ 150	36 ~ 75
Moderate	Green	31 ~ 80	16 ~ 35
Good	Blue	30 and below	15 and below

- PM10, PM2.5 and PM1.0 measurement will be displayed in numbers 05-999.

Filter cleaning reminder

Filter needs Cleaning

Hold  for info

Pull filter downward to remove

 Next  Reset

Resetting filter

This function informs you when you need to clean the filters.

- If an audible alarm is sounded and '**Filter needs cleaning**' appears on the front display when using the device, press and hold the  button for more than 3 seconds for information about filter cleaning.
- Press the  button to clean the filter according to the instructions. Assemble the cleaned filter and press the  button to reset the filter usage time. When the alarm sounds, '**Resetting filter**' is displayed.
- You should also reset the filter cleaning time by pressing and holding the  button for more than 3 seconds when the filters have been cleaned for any reason even if the front display did not display '**Filter needs cleaning**'.

NOTE

- If filter cleaning is required, a 10 second '**Filter cleaning required**' notification is displayed on the display when powered on.
- Filter cleaning notifications are displayed approximately every 60 hours and may vary depending on usage mode.

Wi-Fi On/Off



This feature turns the product's Wi-Fi on or off.

1. Press the  button for 5 seconds.
2. Language Settings mode is displayed. Please keep pressing.
3. If you continue to press, the language setting mode is canceled and Wi-Fi is turned off.
 - Press the  button again for 5 seconds to turn Wi-Fi on.

English

 Next  Save

Wi-Fi turned off

Using the Range Hood

Smart ventilation mode

Smart ventilation turned on

Smart ventilation mode is a function that can measure the kitchen air quality when the product is turned off and determine whether to proceed with exhausting when the air quality is bad.

- Quietly ventilate
- Get notifications
- Detection only

Smart ventilation turned on

1. If you set or turn off the smart ventilation mode in the app, the phrase will be displayed.

Kitchen air quality is bad.
Hood turned on

2. When the air quality deteriorates, it turns on automatically and operates in Low mode.

Low
Silent ventilation

3. It turns off automatically when the air quality improves.

Kitchen air quality is good.
Hood turned off

Smart ventilation turned off
after 1 hour

4. If you operate for 1 hour in smart ventilation mode, it will be turned off automatically.

NOTE

Smart ventilation mode can only be used by connecting the hood to the SmartThings app. If the hood is turned off automatically by operating for 1 hour, it will be able to turn on after least 4 hours.

Automatic operation to prevent range hood overheating

Inner temperature has risen.
Hood turned on for airflow

This feature prevents overheating when the hood is turned off.

- When the hood temperature rises, a notice is displayed and it operates in Medium mode.
- If the hood temperature stabilizes or you press the  button, the hood is turned off.

Circulating air
...

Inner temperature stable.
Hood turned off

Language setting



Changing the Hood's Language.

- The default language is English, and you can choose English, Español, or Français.



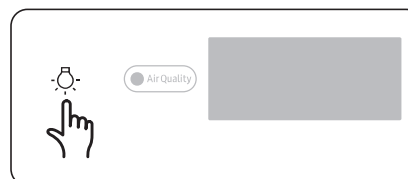
- Please press the  product's button for 3 seconds.



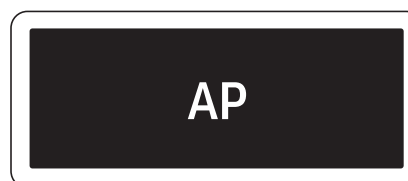
- You can toggle through the languages with the  button and save a language with the  button.



Entering AP(Access Point)



- Press and hold the  button for 5 seconds, following the instructions of the app.



- Enter AP mode.



- Please proceed with the connection according to the mobile guide.



- When the connection is completed, please proceed according to the mobile guide.

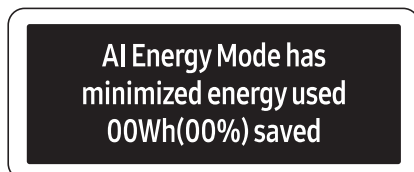
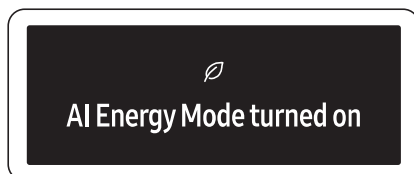
Using the Range Hood

AI Energy Mode



AI Energy Mode is a function that saves energy when usage needs to be reduced by comparing expected monthly usage and its goals, and operates only in smart mode.

- When you set AI Energy Mode in the app, the leaf mark is displayed during smart mode operation.
- If the entry condition is satisfied, the phrase is displayed and operates in AI Energy Mode.



- If you save power usage in AI Energy Mode, display the savings at the end.
- NOTE**
- AI Energy Mode can be used only when the hood is connected to the SmartThings app.
 - You can set AI Energy Mode through SmartThings Energy of SmartThings app.

Bixby

- Bixby is the name of Samsung's artificial intelligence solution which makes it possible to control the product through voice.
- To use the voice recognition function, you need to connect the SmartThings app and the product on your smartphone.
- For models that do not directly recognize voice after connecting with the app, some functions can be controlled through Bixby on Samsung smartphones.

Amazon Alexa & Google Assistant

Samsung smart home appliances are supported by SmartThings skills in Alexa and Actions in Google Assistant.

Installation Guide

Here's how to link a SmartThings account with Amazon Alexa or Google Assistant. The SmartThings app and Alexa app (or Google Assistant app) should be installed on your phone.

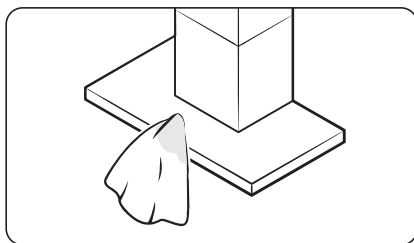
1. Setup supported devices in SmartThings
2. After device setup, tap '**Voice assistant**' and link your Samsung account to Amazon Alexa.
3. Check if the devices are visible on Amazon Alexa app. Then account linking is complete. (Check the devices are visible and set the location (home and room) of devices in the Google Home app. Then account linking is complete.)

Cleaning and Maintenance

NOTE

- The dust concentration may vary depending on the usage environment (around the construction site, around the roadside, using vacuum cleaners, cleaning blankets / clothes, around fabric sofas, etc.).
- In the following cases, dust concentration may be displayed high.
 - When used on shag carpets, veterinarian clinics or clothing stores, humid places, smoke-producing places, insect-rich places, etc.
 - When using a humidifier, spray, sprayer, etc.
 - When used in an environment where pollen occurs and external air flows in (building air conditioner, window frame with draft, etc.)
- If different products are used in the same space, the difference in the dust concentration indication value may occur due to air circulation. The concentration display value may vary from product to product.
- The dust concentration indicator value may be different from the air quality index (AQI) forecast.
- In environments affected by electromagnetic waves or electrical noise, dust concentrations may temporarily appear high.

Cleaning the range hood

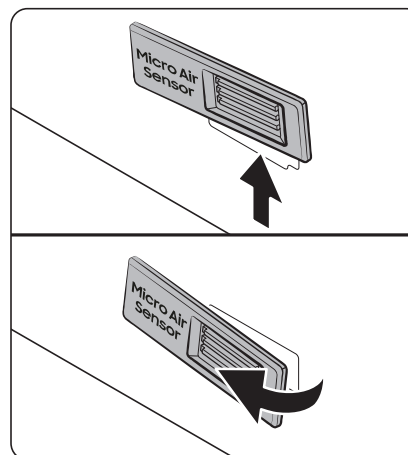


Wipe the front of the product with a soft cloth soaked in neutral liquid detergent.

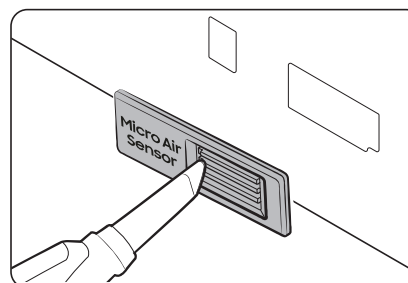
CAUTION

- Do not use rough materials such as sponges.
- Do not use baking soda, percarbonate, citric acid, abrasives, alcohol, etc. The surface coating may be damaged or discolored.
- When cleaning, always wear gloves for safety.
- Be sure to turn off the power when cleaning the hood.
- There is a risk of fire if it is not cleaned according to the user manual.

Cleaning the sensor unit



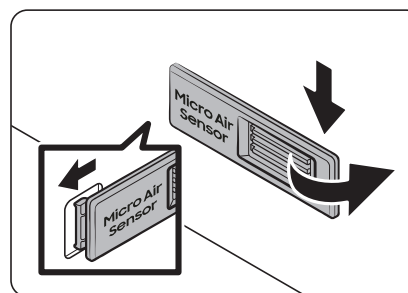
1. Please remove the sensor cover on the left side of the lower duct cover.
 - In the following cases, the dust concentration may appear high.



2. Clean the front/back of the sensor cover using a vacuum cleaner.
 - To prolong sensor life, clean every 6 months.

CAUTION

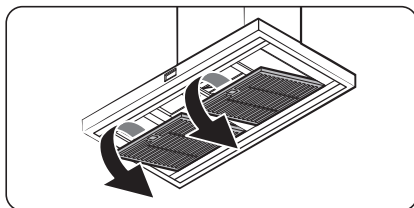
Do not force dust into the entrance of the sensor unit.



3. Please assemble the sensor cover in the reverse order of disassembly.
 - Hang the left hook first, press the right side to insert it, and then lower it.

Cleaning and Maintenance

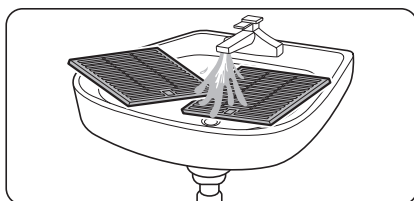
Cleaning the Filters



1. Please remove the filter at the bottom of the hood.

⚠ CAUTION

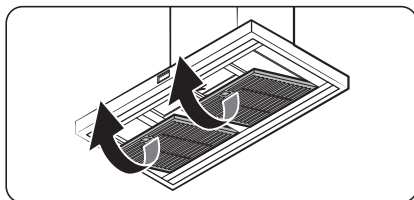
When separating the filter, use both hands to separate it carefully so that it does not drop.



2. Soak the filter in lukewarm water with neutral detergent for about 10 minutes, then rinse it with water and clean it.

⚠ CAUTION

Do not use a scrubber to clean the filter.



3. When cleaning is complete, reassemble the filter in the reverse order of disassembly.

📄 NOTE

Put the filter into the dishwasher and clean it conveniently with a standard wash cycle.

⚠ CAUTION

- Filters should be cleaned by hand with neutral detergent once a month, and if washed with a dishwasher, they should be washed for only a short time at a low temperature.
- Filters may discolor during cleaning, but this does not affect performance.
- Do not spray water directly on the filter while mounted on the hood. There is a risk of electric shock and fire.
- The front of the filter is made of stainless steel. Please be careful with it.
- Be sure to wear gloves because the edge of the filter can be sharp and cause injury.

Replacing the LED Lamp

This product is equipped with a dedicated LED lamp. If you need a replacement, please contact the service center.

SmartThings app

To use the SmartThings app, connect the product to the network in the sequence described below. The images shown may differ depending on your smartphone model, OS version, and manufacturer. You can only set up the Wi-Fi access point when connecting the product to a Wi-Fi network. Once the product is connected, you can use the SmartThings app via Wi-Fi, 3G, LTE, 5G or other wireless networks. If the Wi-Fi disconnects, please follow the instructions in the Samsung SmartThings app via your mobile device or tablet. You can easily install the SmartThings app or use the product with your smartphone by scanning the QR code on the attached label.

1 Checking the power connections

Check if the power is connected to the product and the access point.

2 Setting up and connecting to a Wi-Fi access point using your smartphone

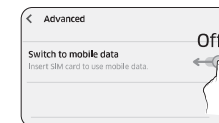
1. To connect the product to a Wi-Fi network, turn on Wi-Fi in "Settings > Wi-Fi", and then select the access point that you wish to connect to.

- Only alphanumeric characters are supported for wireless access point names (SSIDs). If an SSID has a special character, rename it before connecting to it.
- This product supports only **2.4 GHz** Wi-Fi.



2. Turning off "Switch to Mobile Data" in "Settings > Wi-Fi" on Your Smartphone

- If "Switch to mobile data" or "Adaptive Wi-Fi" is turned on, you cannot connect to the network. Be sure to turn off these functions before connecting to the network.



📄 NOTE

The setup may differ depending on your smartphone model, OS version, and manufacturer.

3. Checking Internet Connectivity

- After connecting to Wi-Fi, check that your smartphone is connected to the Internet.

📄 NOTE

A firewall may prevent your smartphone from connecting to the Internet. Contact your Internet service provider for troubleshooting.

3 Downloading the SmartThings app and registering your Samsung account

1. Downloading the SmartThings app

- Search for "SmartThings" in the Play Store or App Store, and download the SmartThings app to your smartphone.
- If the SmartThings app is already installed on your smartphone, update it to the latest version.



SmartThings (Samsung Connect)
Samsung Electronics Co., Ltd.

NOTE

- The SmartThings app supports Android 7.0 or later (with at least 2 GB RAM) and iOS 12.0 or later. The app is optimized for iPhone 6s or later and Samsung smartphones (Galaxy S and Note series). The updates of the SmartThings app or the functions supported by it may be discontinued for the previously supported OS versions due to issues like usability and security.
- The SmartThings app may change without prior notice to improve product usability and performance.

2. Registering your Samsung account

- A Samsung account is required to use the SmartThings app. To create a Samsung account and log in to your account, follow the instructions displayed on the SmartThings app.. You do not need to install an additional app.

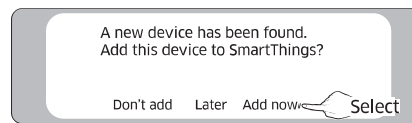
NOTE

- If you already have a Samsung account, log in to the account. If you have a smartphone that is a Samsung device and you have a Samsung account, your smartphone is automatically logged in to your account.
- If you log in from a smartphone produced for another country, you need to log in with its country code when you create your Samsung account, and the SmartThings app may not be usable on some smartphones.

4 Connecting the SmartThings app to your product

1. Selecting the product that you want to connect.

- 1) Start the SmartThings app about one minute after turning on the hood.
- 2) After the SmartThings app is started, select "ADD NOW" when a pop-up window saying that a product is found appears.

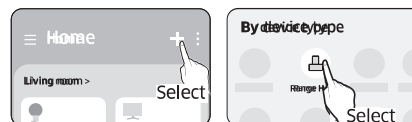


- 3) If the pop-up window does not appear, select "+," and then "Add Device."



You can add a product you want to connect to by selecting it manually or by selecting "Scan."

- Select manually: Range Hood > Samsung
- Scan: [Range Hood] Samsung



2. Connecting the SmartThings app to your product

- Follow the instructions displayed on the SmartThings app to connect to your product.
- For information on how to use the SmartThings app, select the How To menu in the app.

NOTE

- If any pop-up-window appears on the top of the smartphone while connecting to your product, do not select it.
- If a pop-up window saying that the device is already registered appears while connecting to your product, get permission using "REQUEST PERMISSION" from a user already connected to the product, or create a new account using "REGISTER MY ACCOUNT" to independently connect to the product.
- If a Samsung account-related country error occurs while connecting to your product, log out of your current Samsung account, log in to your previous Samsung account, and then delete all devices that have been previously connected. Then, log in to your current Samsung account again and configure the settings.

SmartThings app

- If a failure message appears while adding a device, see "Setting up and connecting to a Wi-Fi access point using your smartphone" on page 32. The connection may fail temporarily due to an installation location problem with the access point or other problems.
- If the word "AP" does not disappear from the display, turn off the power and turn on it in again.
- For the security protocols for wireless/wired access points, WPA-PSK and WPA2-PSK are recommended. For the authentication method, AES is recommended. New Wi-Fi authentication specifications and non-standard WiFi authentication methods are not supported.
- The product supports the IEEE802.11 b/g/n (2.4 GHz) communication protocol. (Samsung recommends IEEE802.11n.)
- If your Internet service provider has permanently registered the MAC address (a unique identification number) of your PC or modem, you may not be able to connect your product to the Internet. Contact your Internet service provider and ask how to connect devices other than your PC (such as a Range Hood) to the Internet.

Open Source Announcement

The software included in this product contains open source software. You may obtain the complete corresponding source code for a period of three years after the last shipment of this product by contacting our support team via <http://opensource.samsung.com> (please use the "Inquiry" menu).

It is also possible to obtain the complete corresponding source code in a physical medium, such as CD-ROM. A minimal payment will be required.

The following URL http://opensource.samsung.com/opensource/SMART_AT_051/seq/0 leads to the open source license information as related to this product. This offer is valid to anyone in receipt of this information.



Troubleshooting

If you suspect there is a failure while using the product, check the following before requesting service from the service center. When you request service, you will be charged for the visit and diagnosing the symptoms even if the product is not broken.

⚠ CAUTION

If you require repairs, disconnect the power circuit breaker immediately and contact the service center.

- Model number and serial number (find by removing the filter, listed inside product)
- Product warranty details
- Explanation of the problem

General

Problem	Cause	Action
It's not working.	Is the power being supplied like normal?	Please check if there is a power outage.
		Please check status of power wires connection.
	Is there any moisture on the exterior of the product?	Please remove moisture from the product.
	Are there any foreign substances on the exterior of the product?	Please wipe off the foreign substance.

Hood Operation

Problem	Cause	Action
The hood's mode changes automatically.	Is it working in smart mode?	Smart mode automatically operates in the High, Medium, and Low modes depending on the air quality.
The hood's wind strength is weak.	Is there a lot of foreign matter in the filter?	Wipe off the filter with a neutral detergent in lukewarm water.

Information codes

Code	Description	Action
C103	Panel PBA communication is not working	Press the POWER  button to restart the product. If the problem persists, disconnect the power for more than 30 seconds. Allow the product to cool and restart it. If it is not resolved, please contact a Samsung Electronics Service Center.
C121	Temperature sensor is not working	
C154	Main PBA communication is not working with Inverter PBA	
C162	Only occurs when EEPROM Read or Write is not working.	
C163	If you need to check the option code	
C203	Inverter PBA communication is not working with Main PBA	

Code	Description	Action
C446	BLDC Motor or Inverter PBA is not working	Press the POWER  button to restart the product. If the problem persists, disconnect the power for more than 30 seconds. Allow the product to cool and restart it. If it is not resolved, please contact a Samsung Electronics Service Center.
C447		
C455		
C478		
C486		
C489		
C493		
C496		
C499		
C654	Electric Damper is not working	Reconnect Electric damper and check any foreign matter is on the damper.