

Built-in and Combination Ovens

Installation Manual

~~HBL8403UC~~ ~~HBL8443UC~~ ~~HBL8743UC~~ ~~HBL8453UC~~
~~HBL8753UC~~ HBL87M53UC



BOSCH

Invented for life

LOT 5-61, BUILT-IN WALL OVEN



Appliance and Cabinet Cutout Dimensions

It is good practice, when an oven is installed at the end of a cabinet run, adjacent to a perpendicular wall, or cabinet door, to allow at least 1/4" (6.4 mm) space between the side of the oven and the wall/door.

For oven support, install 2x4s extending front to back flush with the bottom and the sides of the opening. The supporting base must be well secured to the floor/ cabinet and level.

Junction boxes can be located anywhere within reach of the oven's power cable.

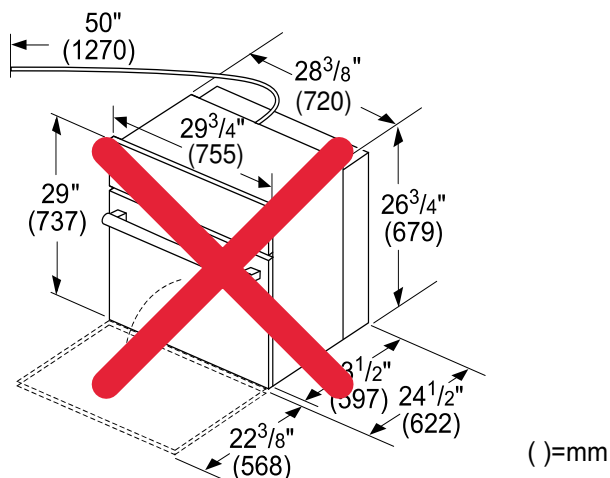
The cabinet base must be flat and capable of supporting the weight of the combination oven up to 429 lbs. (195 kg).

Dimensions for Single Oven Units

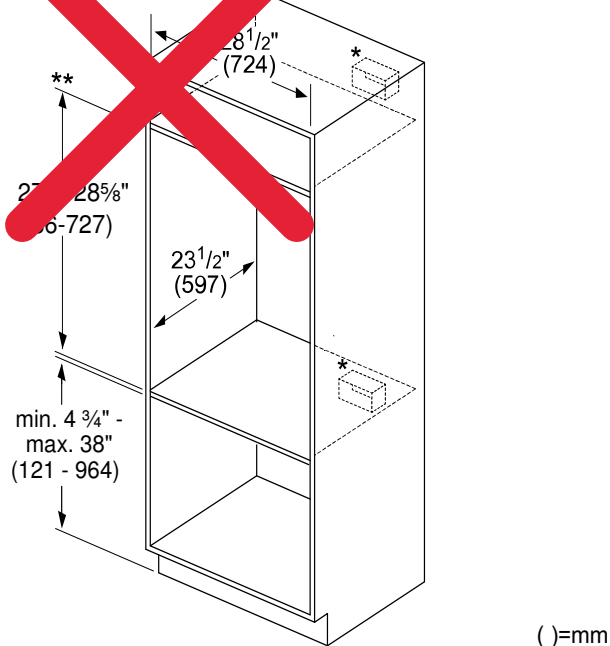
The cabinet base must be flat and capable of supporting a weight of at least 220 lbs. (105 kg).

Under oven dimensions are provided as a general guideline and may be adjusted as needed based on a particular application. Consult a design professional for optimizing personal preferences.

Single Oven Appliance Dimensions



Single Oven Wall Mount Installation



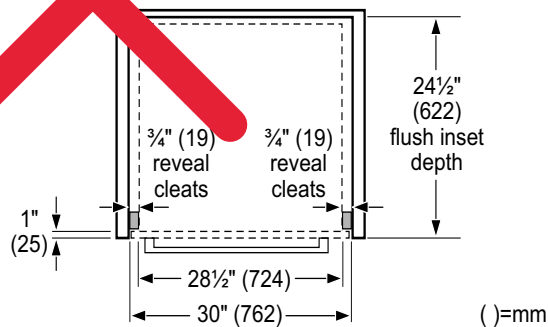
*For single ovens installed into a wall cabinet, the junction box may be located above, beneath, left or right of the unit within reach of the power cord.

**For oven installation in a wall cabinet, the control panel overlap is a minimum 3/8" (10mm) to max. 2" (51mm).

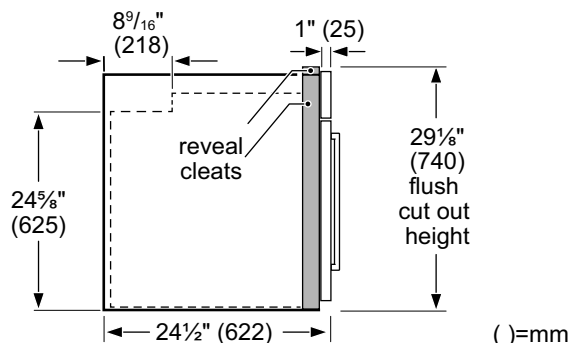
Single Oven Flush Mount Installation

Flush installation requires two side cleats to be attached inside the cabinet frame, recessed from the front.

Top View

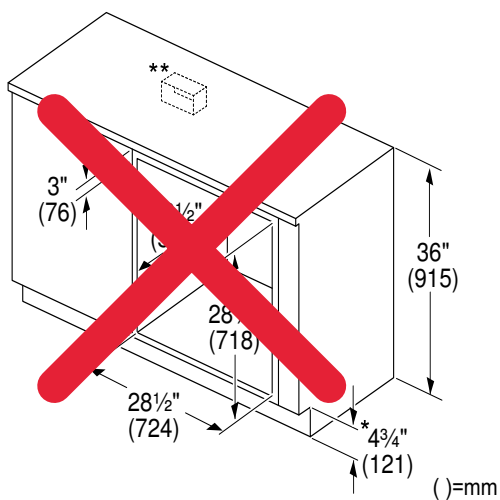


Side View



LOT 5-61, BUILT IN WALL OVENS

Under-Counter Installation



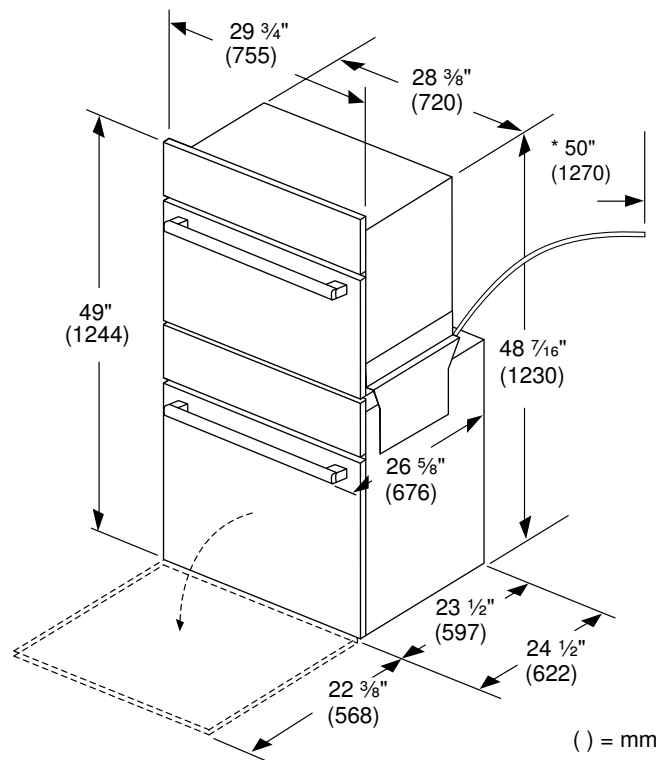
* Includes $\frac{3}{4}$ " (19 mm) base plate.

**For single ovens installed under a cabinet, the junction box should be located to the right or left of the unit within range of the power cord.

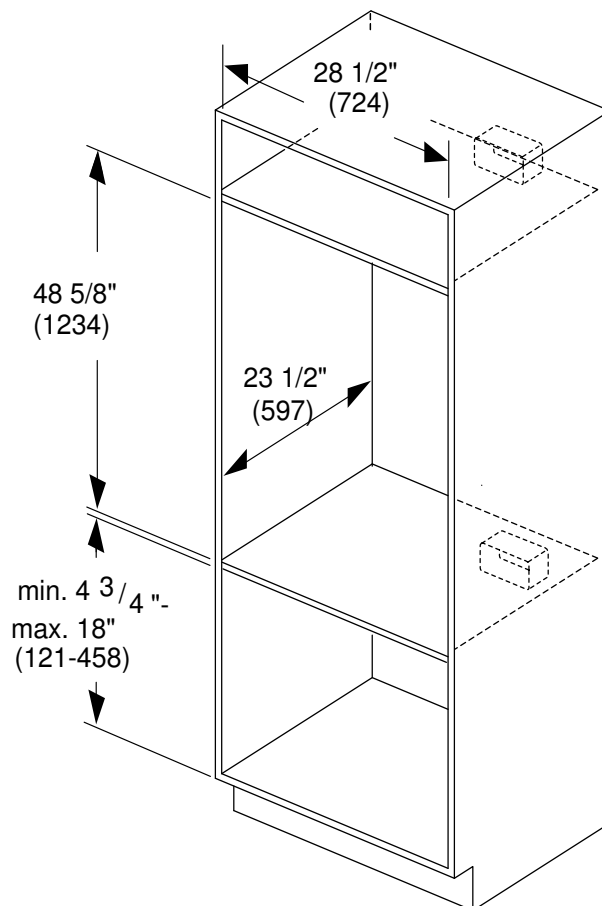
Dimensions for Combination Oven Units

The cabinet base must be flat and capable of supporting the weight of the combination oven up to 429 lbs (195 kg).

Combination Oven Appliance Dimensions



Combination Oven Traditional Installation



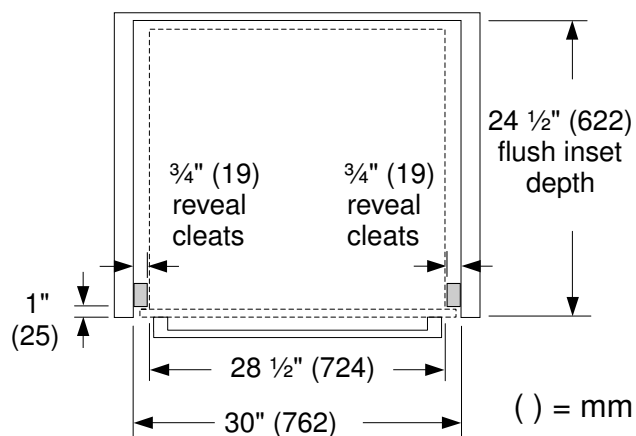
Note: Junction box may be installed above, below, to the left or to the right of the unit within reach of the power cord.

LOT 5-61, BUILT IN WALL OVENS

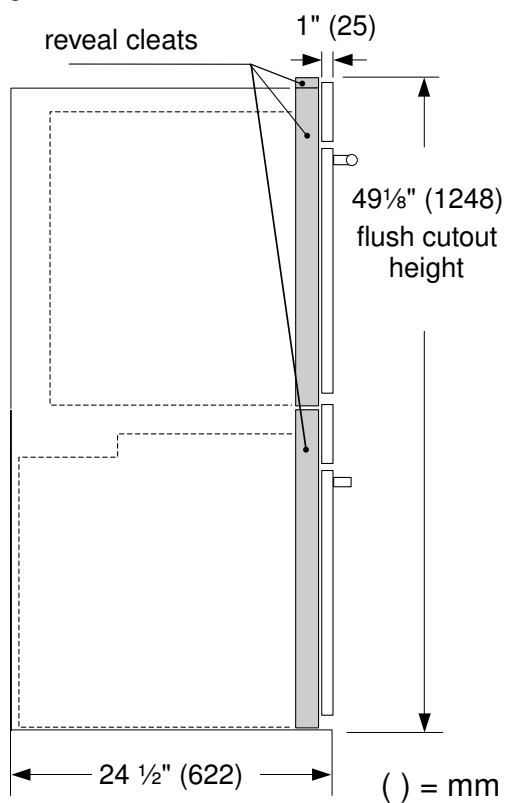
Combination Oven Flush Mount Installation

Flush installation requires two side cleats to be attached inside the cabinet frame, recessed from the front.

Top View



Side View



Electrical Installation - Grounding Instructions

The assembled combination oven should be moved in front of the cabinet opening and the power cable from the lower oven should be connected to the cabinet junction box.

All model ovens on the front cover of this installation instruction manual are dual rated, designed to be connected to either 208 or 240V AC, 60 Hz, 4 wire, single-phase power supply.

Model	Circuit Required
HBL8463UC	208V, 60 Hz/ 240V, 60 Hz
HBL8443UC	30 AMP
HBL8453UC	30 AMP
HBL8748UC	208V, 60 Hz/ 240V, 60 Hz
HBL8753UC	40 AMP
HBL87M53UC	

The electrical supply should be a 4-wire single phase AC. Install a suitable conduit box (not furnished). An appropriately-sized, UL-listed conduit connector must be used to correctly attach the conduit to the junction box.

Note: Local codes may vary. Installation, electrical connections and grounding must comply with all applicable local codes.

If local codes permit grounding through the electrical supply neutral, connect both the white neutral wire and the green ground wire from the oven to the white neutral electrical supply wire.

Electrical Connection

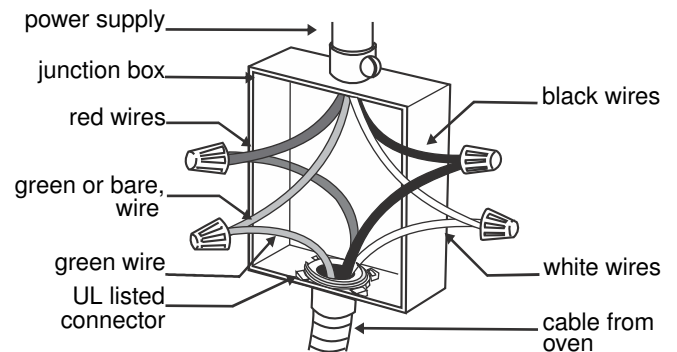
The four-wire connection is preferred, but where local codes permit, the three wire connection is also acceptable.

⚠ WARNING

When connected to a 4 or 5-wire, 120/208-Volt 3-phase power supply, the phase C conductor is not required for the operation of the appliance.

Four-wire Connection

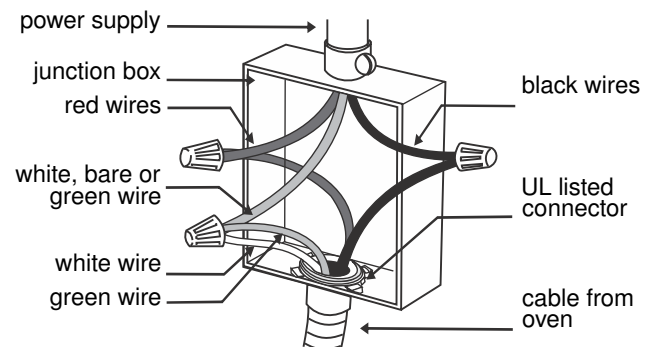
Ungrounded Neutral



- Connect the red oven wire to the red electrical supply wire (hot wire).
- Connect the black oven wire to the black electrical supply wire (hot wire).
- Connect the white neutral oven wire to the white neutral (not bare or green ground) electrical supply wire.
- Connect the green ground oven wire to the bare or green ground electrical supply wire.

Three-wire Connection

Grounded Neutral



- Connect red wire from oven to red wire in junction box.
- Connect black wire from oven to black wire in junction box.
- Connect both green ground wire and white wire from oven to white, green or bare neutral wire in junction box.

The conduit cable, where connected at the oven, swivels. Rotate conduit cable upward (or downward) and direct through hole prepared in cabinet to attach to junction box.

To maintain serviceability, the flex conduit must not be shortened and should be routed to permit temporary removal of the oven.

Gas Rangetop

Installation Manual

LOT 5-61, COOKTOP

~~RGM8058UC~~, RGM8658UC



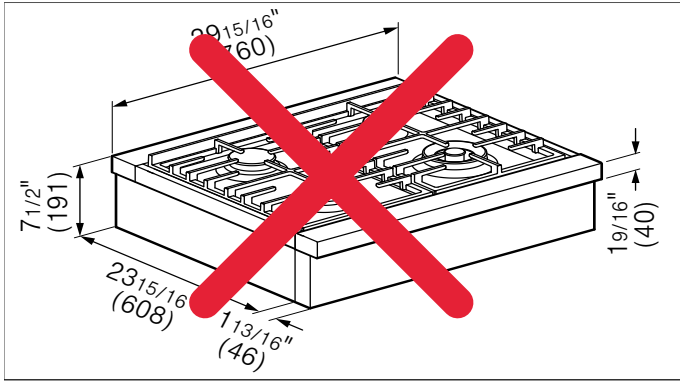
BOSCH

Invented for life

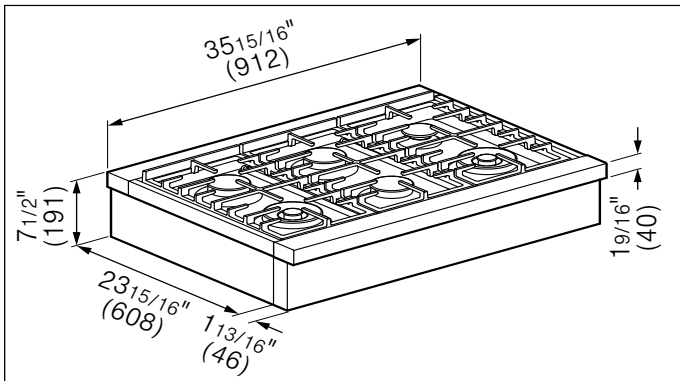


General Information

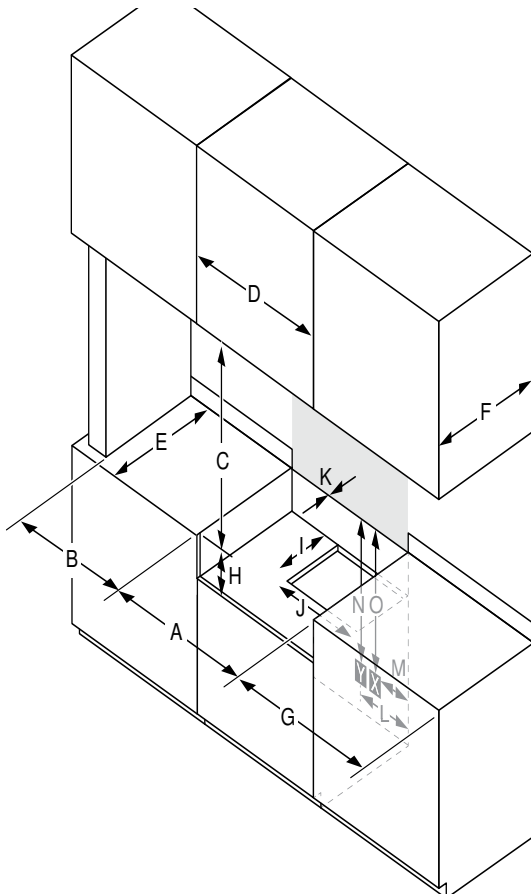
30":



36":



Cabinet Requirements



The minimum spaces that must be maintained when installing the gas cooktop shall be:

- A** ~~30": minimum 30" (762 mm)~~
36": minimum 36" (914 mm)
- B** minimum 20" (508 mm)*
- C** minimum 30" (762 mm) clearance between the top of the cooking surface and the bottom of the unprotected wood or metal cabinet
- D** ~~30": minimum 30" (762 mm)~~
36": minimum 36" (914 mm)
- E** minimum 24" (610 mm)
- F** maximum 13" (330 mm)
- G** minimum 20" (508 mm)*
- H** 7 3/8" (187 mm)
- I** minimum 4" (102 mm)
- J** minimum 12" (305 mm)
- K** minimum 0" (0 mm)

* Minimum distance is 12" (305 mm), but the total distance, left plus right, must be minimum 40" (1016 mm).

Gas supply line and grounded outlet

X = Gas Supply Line

Y = Grounded Outlet

The positions of the gas supply line and the grounded outlet should be:

- L** 8-12" (203-305 mm)
- M** 2-4" (51-101 mm)
- N** 24-28" (610-711 mm)
- O** 24-28" (610-711 mm)

Countertop Requirements

⚠ WARNING

To reduce the risk of ignition of surrounding combustible materials, install at least 20" (508 mm) from both sidewalls. Minimum distance is 12" (305 mm), but the total distance, left plus right, must be minimum 40" (1016 mm).

The countertop must be level and horizontal. The stability of the countertop must be maintained after the cut-out has been made.

Technical Data

36" (4 burners):

Total connected load, electric	0.001 A 0.1 W
Total connected load, gas (natural gas)	77,000 BTU/h (22.5 kW)
Total connected load, gas (propane gas)	47,000 BTU/h (13.7 kW)

36" (6 burners):

Total connected load, electric	0.001 A 0.1 W
Total connected load, gas (natural gas)	77,000 BTU/h (22.5 kW)
Total connected load, gas (propane gas)	77,000 BTU/h (22.5 kW)

Installation Checklist

Please refer to the pages following for complete installation instructions. Use this checklist to verify that you have completed each step of the installation process. This can help you avoid mistakes.



Installation step

Before installing the cooktop, be sure to verify the cabinet dimensions are correct for your unit and that the required electrical and gas connections are present.

Before installing the cooktop, make sure that any opening in the wall behind the appliance and in the floor under the appliance shall be sealed.

Refer to the installation manual for content regarding Safety, Cabinet Dimensions, Removing Packaging, Electrical Installation, Gas Connection, and Customer Service.

Plug the cooktop into a properly configured receptacle.

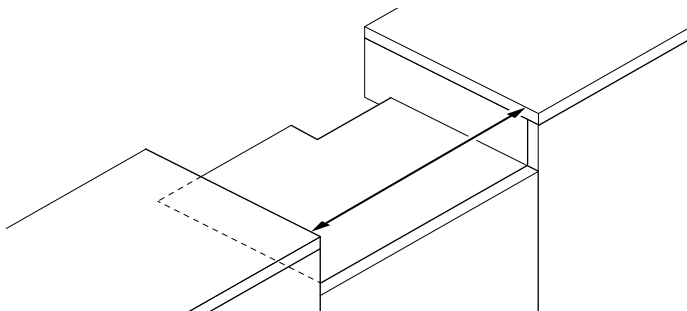
Installation Procedure

An air curtain or other overhead range hood, which operates by blowing a downward airflow onto a range, shall not be used in conjunction with the gas range unless the hood and range have been designed and tested in accordance with ANSI Z21.1 and listed by an independent testing laboratory for combination use.

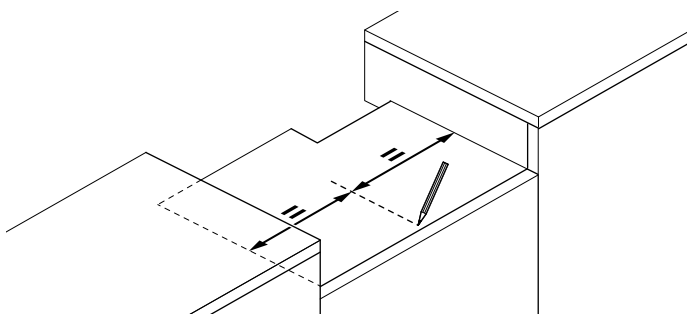
Prepare Installation Space

Installing the Bracket with Recess Depth up to 24"

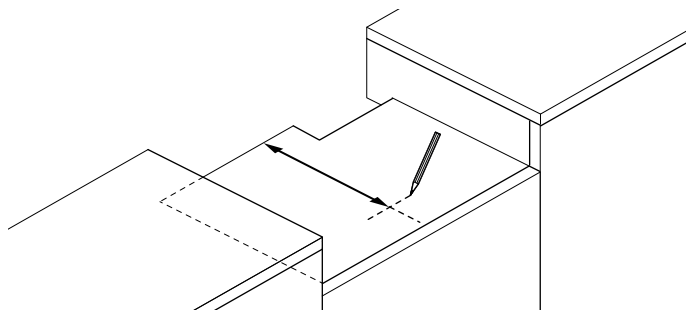
1. Measure the width of the slot for the appliance.



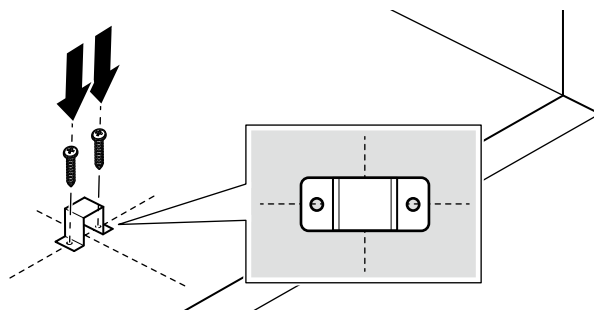
2. Divide the measurement in two and trace the midline on the furniture's floor.



3. Measure from the wall 21" (about 534 mm) and trace a line perpendicular to the midline.



4. Put the bracket approximately as in the figure below, in the middle of the two lines (since it's not necessary to be more precise because the slot in the range top's floor provides enough clearance) and trace the center of the bracket's holes or fix it directly with the screws.

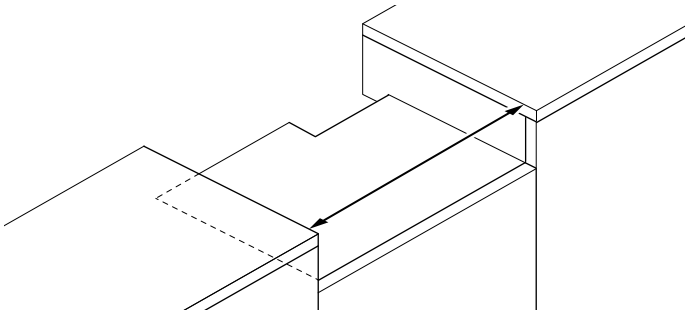


LOT 5-61, COOKTOP

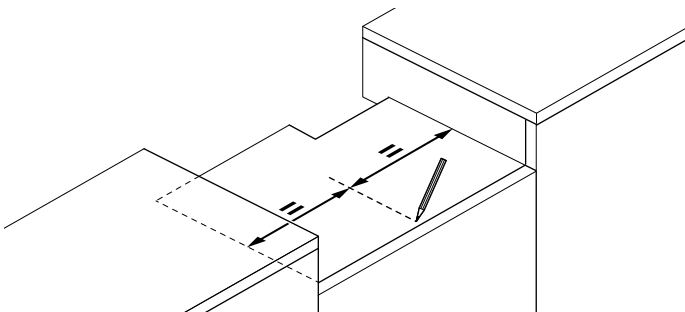
Installing the Bracket with Recess Depth over 24"

If the depth is more than 24" you can choose to install the range top against the wall as in the previous procedure and let the control panel go inside the furniture. Or you can decide to align the control panel with the rear side of the furniture and have a clearance on the back part between the appliance and the wall, so:

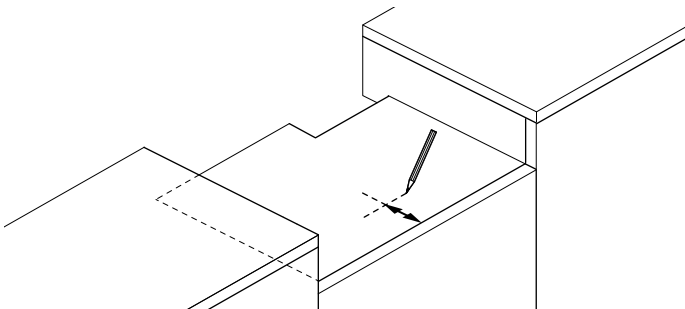
1. Measure the width of the slot for the appliance.



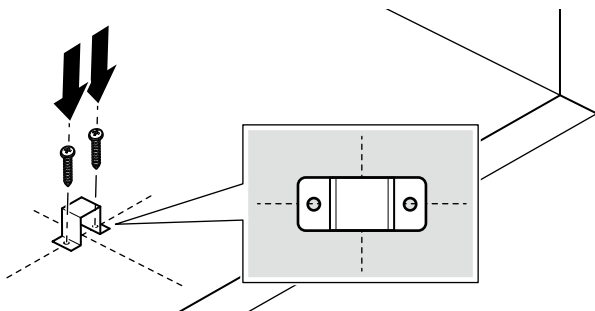
2. Divide the measurement in two and trace the midline on the furniture's floor.



3. Measure from front side of the furniture 3" (about 76 mm) and trace a line perpendicular to the midline.



4. Put the bracket approximately as in the figure below, in the middle of the two lines (since it's not necessary to be more precise because the slot in the range top's floor provides enough clearance) and trace the center of the bracket's holes or fix it directly with the screws.



Connect Gas Supply

The appliance is shipped from the factory for use with natural gas at a pressure of 5" water column. When checking for proper operation of the regulator, the inlet pressure must be at least 1" greater than the operating (manifold) pressure above. When used with natural gas, the pressure supplied to the regulator must be between 6" and 10,5" water column.

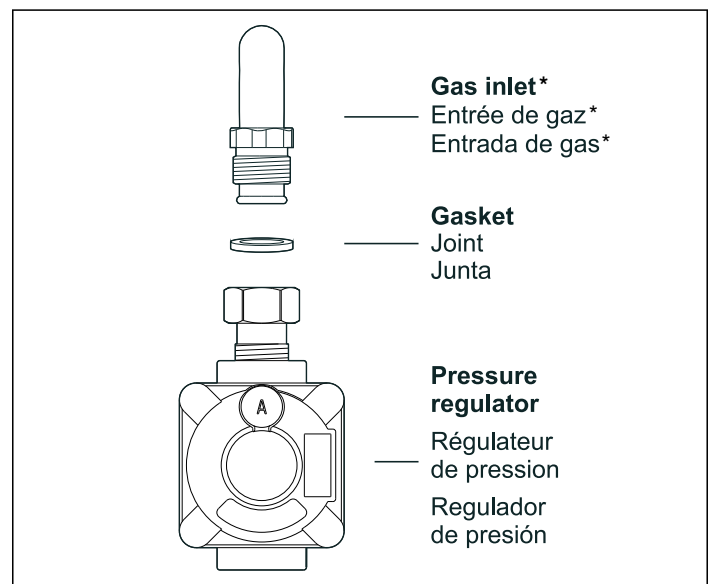
To convert the appliance to propane gas see "Conversion to propane gas (LPG)". A qualified technician or installer must do the conversion.

The gas inlet to the unit is located at the right rear of the appliance.

Install the pressure regulator (supplied with unit) to gas inlet. Position the gasket (supplied with unit) in between the inlet and the regulator. Position the regulator to have it cap D (→ Page 15) easily accessible. Turn the nut on gas inlet to hand tighten plus 1/3 turn.

Install the gas pipe to the regulator using Teflon tape or pipe-joint compound (resistant to propane gas and natural gas). Turn to hand tighten plus 1/3 turn. Do not exceed 1 turn for alignment, to prevent possible damage to the gas pressure regulator.

Check inlet fittings and regulator for leaks.



* Attached to the appliance.

⚠ WARNING

Do not attempt any adjustment of the pressure regulator, except when converting to propane. Adjustments could lead to leaks or cause incorrect gas pressure to the appliance.

Installation Requirements

Electrical Requirements

IMPORTANT

Observe all governing codes and ordinances.

It is the customer's responsibility:

To contact a qualified electrical installer.

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

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

Venting Requirements

- 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.
- Use metal vent only. Rigid metal vent is recommended. Plastic or metal foil vent is 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 quiet 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 1 elbow is used.
- Do not install 2 elbows together.
- Use clamps to seal all joints in the vent system.
- The vent system must have a damper. If the roof or wall cap has a damper, do not use the damper supplied with the range hood.
- Use caulking to seal the exterior wall or roof opening around the cap.
- The size of the vent should be uniform.

Venting Methods

This canopy hood is factory set for venting through the roof or wall. A 6" (15.2 cm) round vent system is needed for installation (not included). The hood exhaust opening is 6" (15.2 cm) round.

NOTE

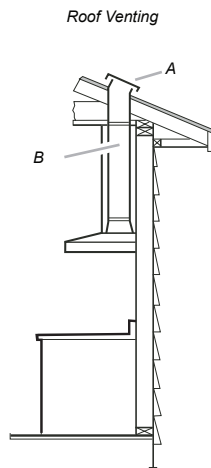
Flexible vent is not recommended. Flexible vent creates back pressure and air turbulence that greatly reduce performance. The vent system can terminate either through the roof or wall. To vent through a wall, a 90° elbow is needed.

Mounting Height

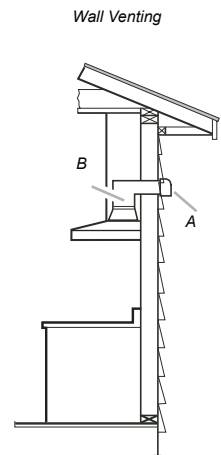
Select a mounting height between a minimum of 24" (61 cm) for an electric cooking surface, a minimum of 30" (76.2 cm) for a gas cooking surface, and a suggested maximum of 36" (91.4 cm) above the range to the bottom of the hood.

Rear discharge

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



A. Roof cap
B. 6" (15.2 cm) round vent



A. Wall cap
B. 6" (15.2 cm) round vent

Installation Requirements

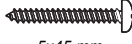
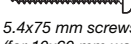





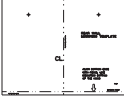
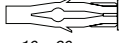
Tools and Parts

Parts supplied
Removing the packaging

CAUTION
Remove the carton carefully. Wear gloves to protect against sharp edges.

WARNING
Remove the protective film covering the product before putting into operation.

- Hood canopy assembly with blower and LED lamps already installed.
- 6" (15.2 cm) round air transition
- Duct covers
- Hardware bag with:

Part	Qty	Part	Qty
 5x45 mm	6	 5.4x75 mm screws (for 10x60 mm wall anchors)	4
 8x40 mm	2	 Torx 10 adapter	1
 3.5x9.5 mm	2	 Duct cover bracket	1
 4x8 mm	4	 Mounting template	1
 10 x 60 mm	4		

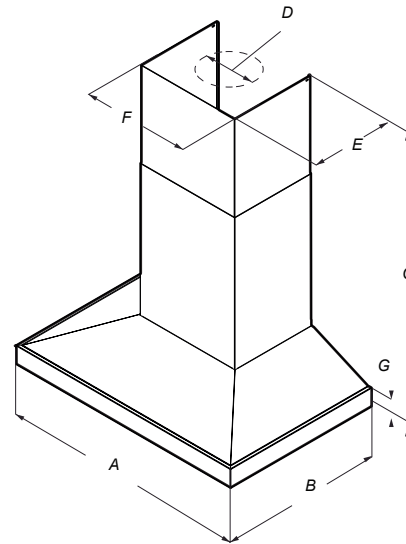
Tools/Materials required

- Level
- Drill with 1¼" (3.2 cm), ½" (3.2 mm), and ⅛" (4.8 mm) drill bits
- Pencil
- Wire stripper or utility knife
- Tape measure or ruler
- Pliers
- Caulking gun and weatherproof caulking compound
- Vent clamps
- Jigsaw or keyhole saw
- Flat-blade screwdriver
- Metal snips
- Phillips & Torx 20 screwdriver

Parts needed

- Home power supply cable
- ½" (12.7 mm) UL listed or CSA approved strain relief
- 3 UL listed wire connectors
- 1 wall or roof cap
- Metal vent system

Dimensions and Clearances



	NK30K7000WS NK30K7000WG	NK36K7000WS NK36K7000WG
A	30" (76 cm)	36" (91.2 cm)
B	19⅛" (50 cm)	
C*	max. 39⅜" (100.3 cm) min. 25⅝" (64.5 cm)	
D	6" (15.24 cm)	
E	10⅞" (26.9 cm)	
F	13⅝" (33.2 cm)	
G	2⅜" (6 cm)	

*For vented installations

Installation

Step-by-step installation

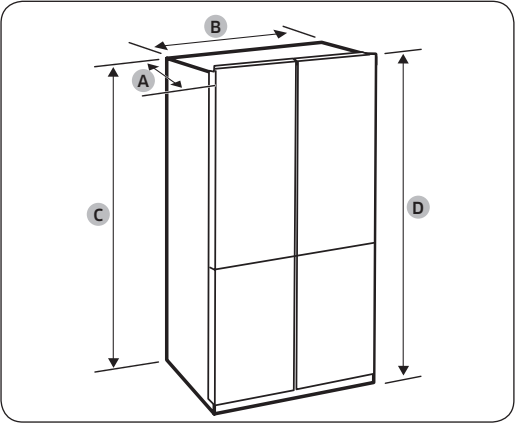
STEP 1 Select a site

The site must:

- Have a solid level surface without carpeting or flooring that may obstruct ventilation
- Be out of direct sunlight
- Have adequate room for opening and closing the door
- Be away from any heat source
- Provide room for maintenance and servicing
- Have a temperature range between 50 °F (10 °C) and 110 °F (43 °C)

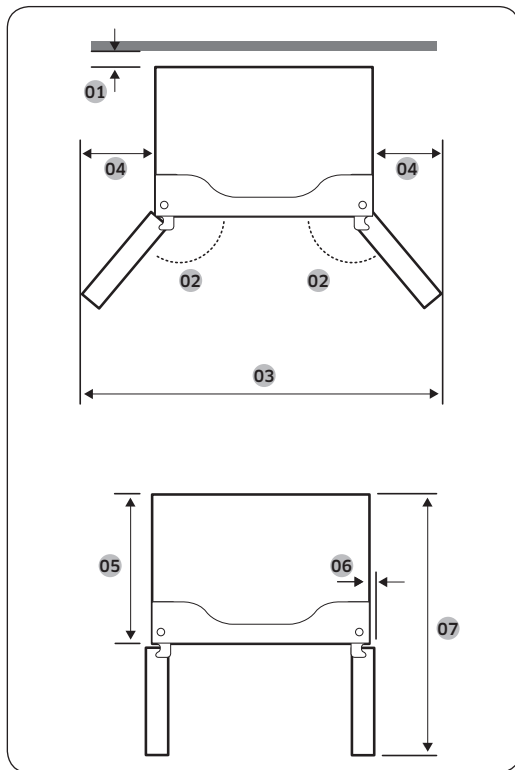
Clearance

See the pictures and table below and on the next page for installation space requirements.



Model	RF29A977***	RF23A977***
Depth "A"	33 7/8" (861 mm)	28 1/2" (723 mm)
Width "B"	35 7/8" (912 mm)	35 7/8" (912 mm)
Height "C"	70 3/4" (1797 mm)	70 3/4" (1797 mm)
Overall Height "D"	71 7/8" (1825 mm)	71 7/8" (1825 mm)

LOT 5-61, FRIDGE



Model	RF29A977***	RF23A977***
01	more than 50 mm recommended	
02	125°	125°
03	58" (1472 mm)	58" (1472 mm)
04	11 1/8" (282 mm)	11 1/8" (282 mm)
05	29 3/8" (748 mm)	24" (610 mm)
06	1 7/8" (47 mm)	1 7/8" (47 mm)
07	48 1/2" (1231 mm)	43" (1093 mm)

NOTE

The measurements of your refrigerator may differ from those listed above, depending on the measuring method.

DW80R2031 Series

Dishwasher installation guide



**These installation instructions are intended
for use by qualified installers.**

If you are having problems installing this dishwasher
Please call : **1-800-SAMSUNG (726-7864)**
for assistance : www.samsung.com

imagine the possibilities

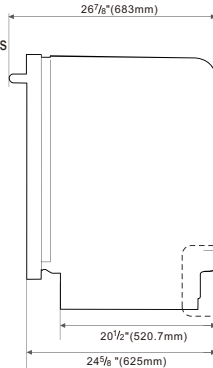
Thank you for purchasing this Samsung product.

SAMSUNG

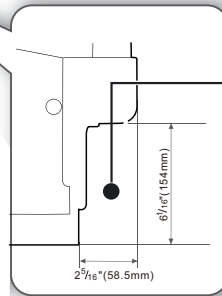
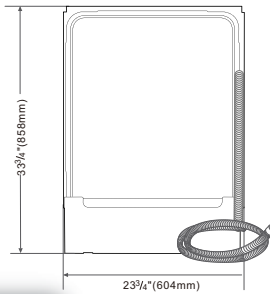
preparing the dishwasher enclosure

PRODUCT DIMENSIONS

Side view
DW80R2031 Series



Rear view



The water supply line, power cable and drain hose should go through this space behind the dishwasher. Then, the power cable run in channels under the dishwasher to connections in the front.

ENCLOSURE DIMENSIONS



This dishwasher is designed to be enclosed on the top and on both sides by a standard residential kitchen cabinet unit.

The installation enclosure must be clean and free of any obstructions.

The enclosure must be at least 24 inches wide, 24 inches deep and 34 1/8 inches high.

For the front door of the dishwasher to be flush with the leading edge of the counter top, the counter top must be at least 25 inches deep.

