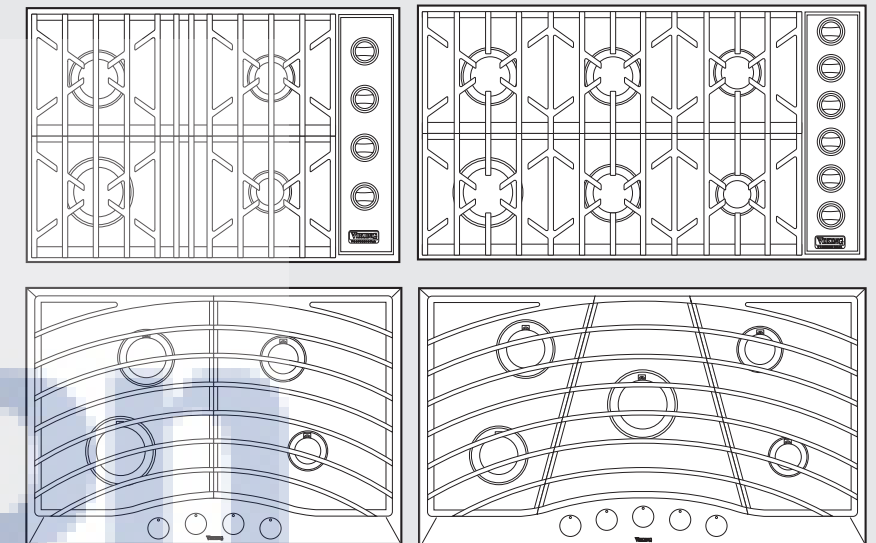


# Viking Installation Guide



Viking Range Corporation  
111 Front Street  
Greenwood, Mississippi 38930 USA  
(662) 455-1200

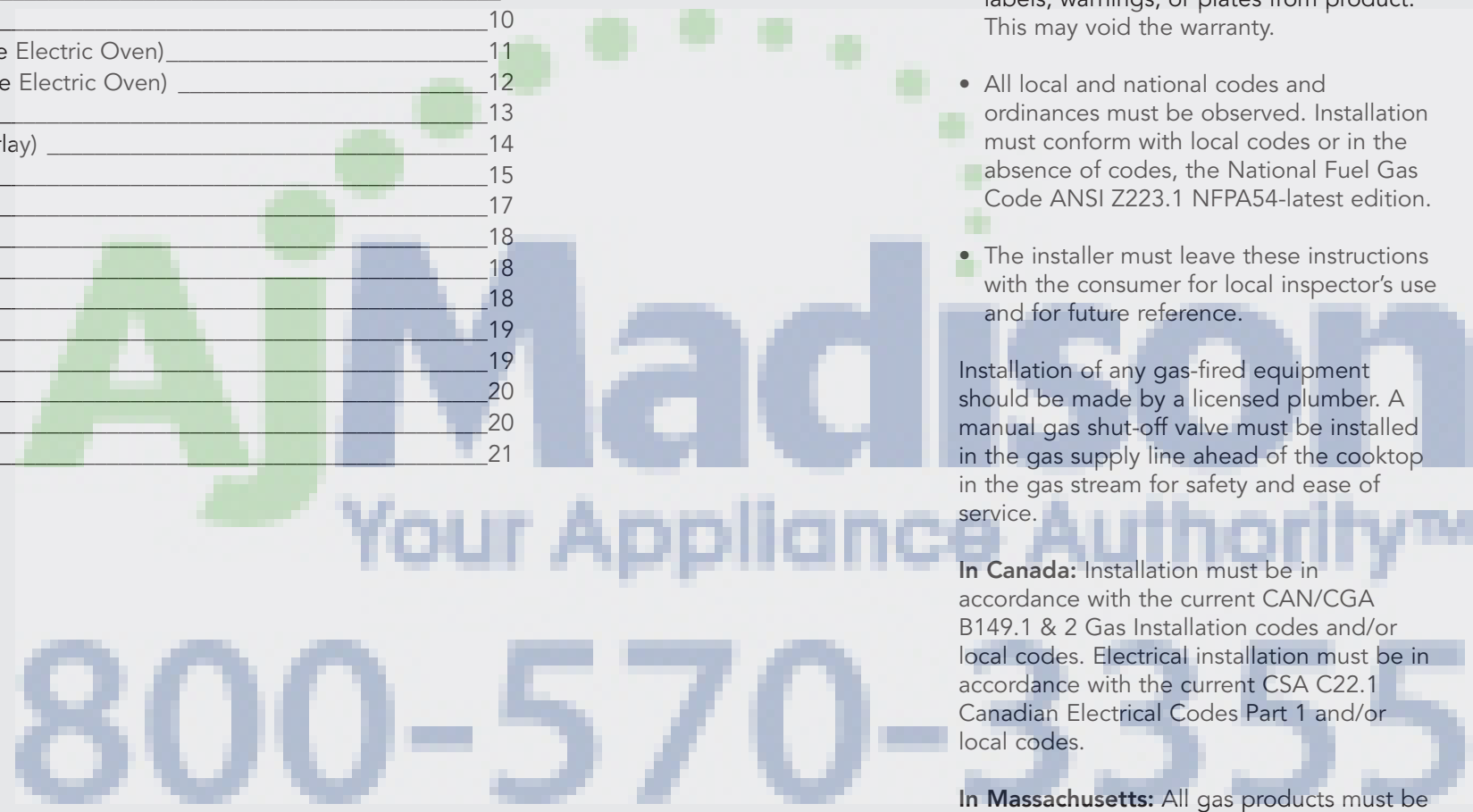
For product information,  
call 1-888-VIKING1 (845-4641)  
or visit the Viking Web site at  
[vikingrange.com](http://vikingrange.com)



Professional and Designer  
Built-In Gas Cooktops

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# IMPORTANT— Please Read and Follow

- Before beginning, please read these instructions completely and carefully.
- **DO NOT** remove permanently affixed labels, warnings, or plates from product. This may void the warranty.
- All local and national codes and ordinances must be observed. Installation must conform with local codes or in the absence of codes, the National Fuel Gas Code ANSI Z223.1 NFPA54-latest edition.
- The installer must leave these instructions with the consumer for local inspector's use and for future reference.

Installation of any gas-fired equipment should be made by a licensed plumber. A manual gas shut-off valve must be installed in the gas supply line ahead of the cooktop in the gas stream for safety and ease of service.

**In Canada:** Installation must be in accordance with the current CAN/CGA B149.1 & 2 Gas Installation codes and/or local codes. Electrical installation must be in accordance with the current CSA C22.1 Canadian Electrical Codes Part 1 and/or local codes.

**In Massachusetts:** All gas products must be installed by a "Massachusetts" licensed plumber or gasfitter. A "T" type handle manual valve must be installed in the gas supply line to the appliance.

**Your safety and the safety of others is very important.**

We have provided many important safety messages in this manual and on your appliance. **ALWAYS** read and obey all safety messages.



This is the safety alert symbol. This symbol alerts you to hazards that can kill or hurt you and others.

All safety messages will be preceded by the safety alert symbol and the word "DANGER," "WARNING" or "CAUTION." These words mean:

<b>⚠ DANGER</b>
<b>Hazards or unsafe practices which WILL result in severe personal injury or death</b>
<b>⚠ WARNING</b>
<b>Hazards or unsafe practices which COULD result in severe personal injury or death</b>
<b>⚠ CAUTION</b>
<b>Hazards or unsafe practices which COULD result in minor personal injury or property damage.</b>
All safety messages will identify the hazard, tell you how to reduce the chance of injury, and tell you what can happen if the instructions are not followed.

# IMPORTANT— Please Read and Follow

# IMPORTANT— Please Read and Follow

**⚠ DANGER**

**FIRE/EXPLOSION HAZARD**  
 IF THE INFORMATION IN THIS MANUAL IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH.

- **DO NOT** store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- **WHAT TO DO IF YOU SMELL GAS:**
  - DO NOT** try to light any appliance.
  - DO NOT** touch any electrical switch.
  - DO NOT** use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone.
  - Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

**⚠ CAUTION**

**BURN HAZARD**  
 The use of cabinets for storage above the appliance may result in a potential burn hazard. Combustible items may ignite, metallic items may become hot and cause burns. If a cabinet storage is to be provided the risk can be reduced by installing a range hood that projects horizontally a minimum of 5" (12.7 cm) beyond the bottom of the cabinets.

**⚠ WARNING**

**CHEMICAL HAZARD**  
 If not installed, operated and maintained in accordance with the manufacturer's instructions, this product could expose you to substances in fuel or from fuel combustion which can cause death or serious illness and which are known to cause cancer, birth defects, or other reproductive harm.

For example, benzene is a chemical which is part of the gas supplied to the cooking product. It is consumed in the flame during combustion. However exposure to a small amount of benzene is possible if a gas leak occurs. Formaldehyde and soot are byproducts of incomplete combustion. Properly adjusted burners with a bluish rather than yellow flame will minimize incomplete combustion.

**⚠ CAUTION**

Before placing the cooktop into operation, always check for gas leaks with a soapy water solution or other acceptable method. **DO NOT USE AN OPEN FLAME TO CHECK FOR LEAKS.**

**⚠ WARNING**

This appliance shall not be used for space heating. This information is based on safety considerations.

**⚠ WARNING**

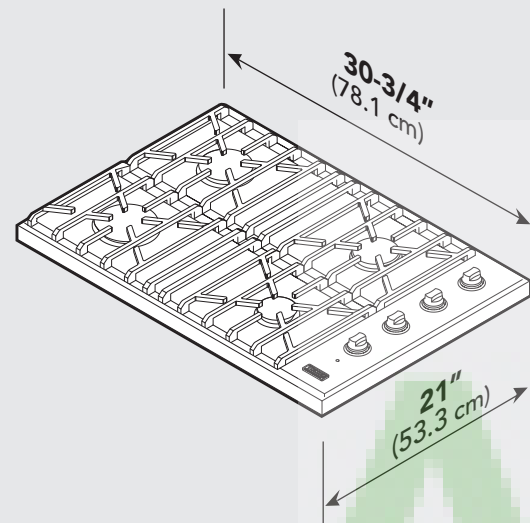
**ELECTRICAL GROUNDING INSTRUCTIONS**  
 The cooktop must be electrically grounded in accordance with local codes or, in the absence of codes, with the ANSI/NFPA No. 70-latest edition. Installation should be made by a licensed electrician. This appliance is equipped with a three-prong grounding plug for your protection against shock hazard and should be plugged directly into a properly grounded receptacle. **DO NOT** cut or remove the grounding prong from the plug.

**For personal safety, this appliance must be properly grounded. DO NOT under any circumstances cut or remove the third (ground) prong from the power plug.**

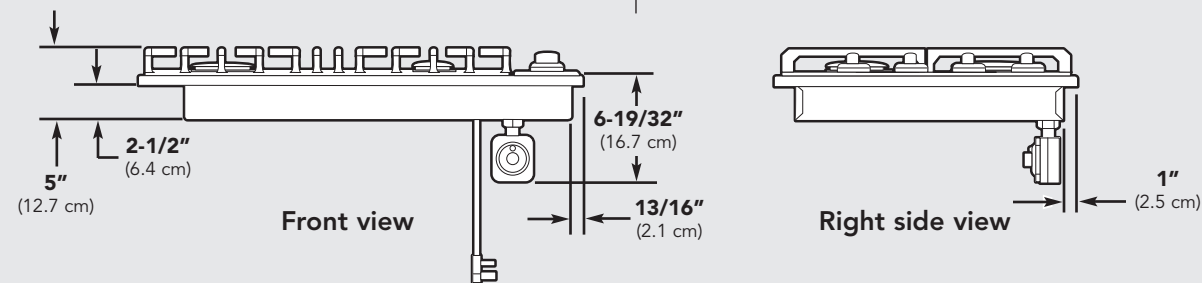
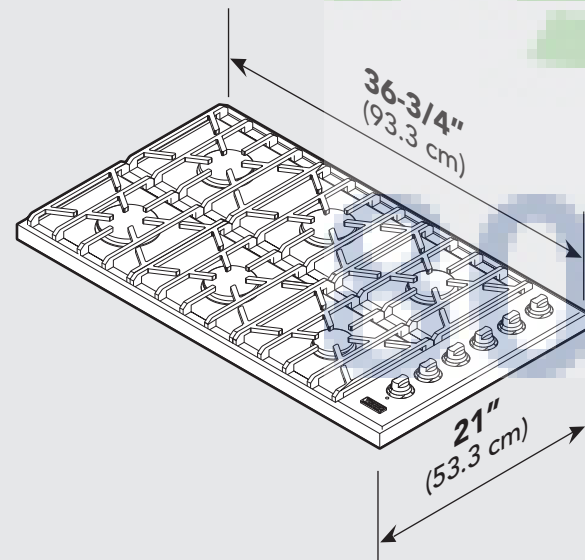


## Dimensions (VGSU Professional)

30" Gas Cooktop



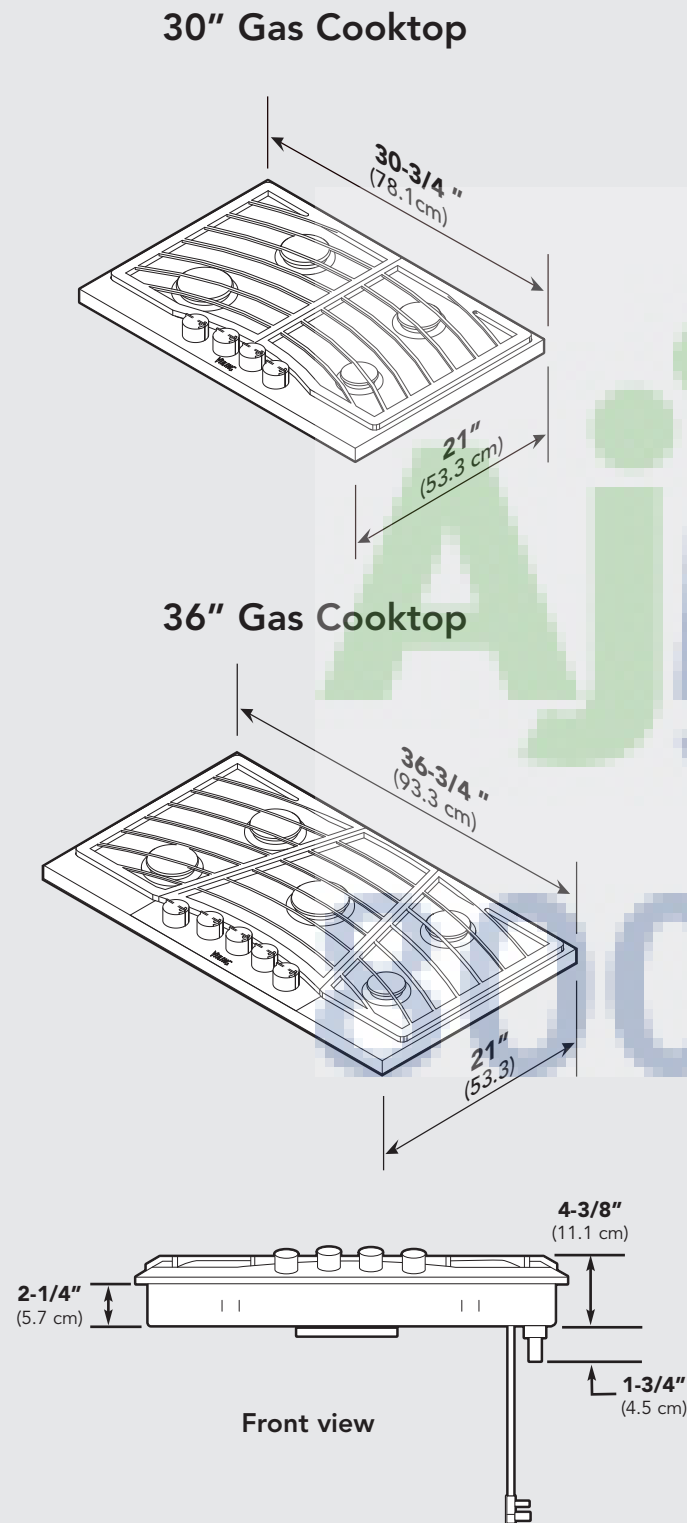
36" Gas Cooktop



## Specifications (VGSU Professional)

Professional Gas Cooktops		
Description	VGSU104	VGSU164
Overall width	30-3/4" (78.1 cm)	36-3/4" (93.3 cm)
Overall height from bottom to top of grate	5" (12.7 cm)	
Overall depth from rear	21" (53.3 cm)	
Cutout width	26-7/8" (68.3 cm) min. to 29-7/8" (75.9 cm) max.	34-3/8" (87.3 cm) min. to 35-7/8" (91.1 cm) max.
Cutout height	2-1/2" (6.4 cm)	
Cutout depth	18-5/8" (47.3 cm) min. to 20-1/8" (51.1 cm)	
Gas requirements	To field convert from natural or LP/Propane, the orifice spuds and regulator must be physically changed. Order conversion kit NK2VGSU to convert to natural and LPK3VGSU to convert to LP. Uses standard residential 1/2" (1.3 cm) I.D. gas service line.	
Electrical requirements	120 VAC/60 Hz; 4 ft. (121.9 cm), 3-wire cord with grounded 3-prong plug attached to product.	
Maximum amp usage	2.0 amps	
Surface element rating		
Left front	16,000 Nat./15,500 LP (BTU) (4.8 Nat./4.65 LP (kw))	16,000 Nat./15,500 LP (BTU) (4.8 Nat./4.65 LP (kw))
Left rear	12,000 Nat./11,500 LP (BTU) (3.6 Nat./3.45 LP (kw))	12,000 Nat./11,500 LP (BTU) (3.6 Nat./3.45 LP (kw))
Center front/rear	N/A	12,000 Nat./11,500 LP (BTU) (3.6 Nat./3.45 LP (kw))
Right front	6,000 Nat./5,500 LP (BTU) (1.8 Nat./1.65 LP (kw))	6,000 Nat./5,500 LP (BTU) (1.8 Nat./1.65 LP (kw))
Right rear	8,000 Nat./7,500 LP (BTU) (2.4 Nat./2.25 LP (kw))	8,000 Nat./7,500 LP (BTU) (2.4 Nat./2.25 LP (kw))
Approximate shipping weight	67 lb. (30.2 kg)	80 lb. (36.0 kg)

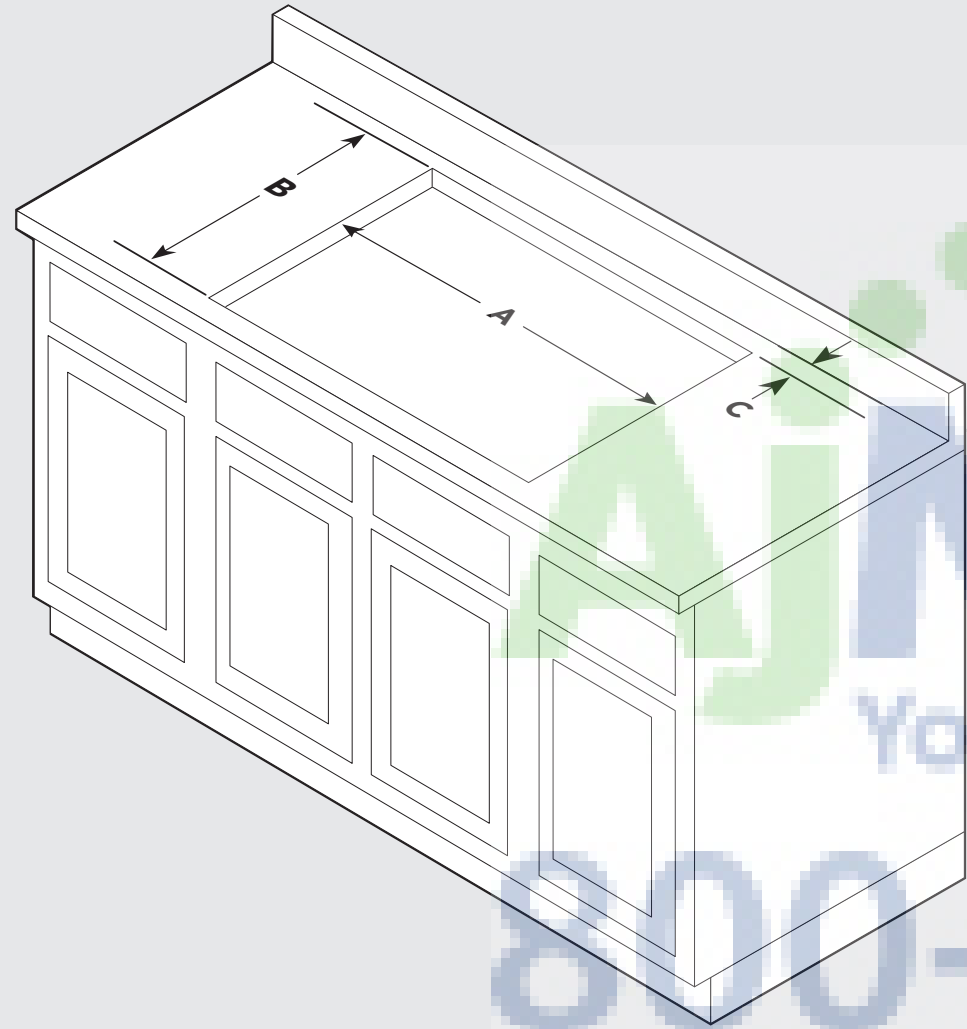
# Dimensions (DGSU Designer)



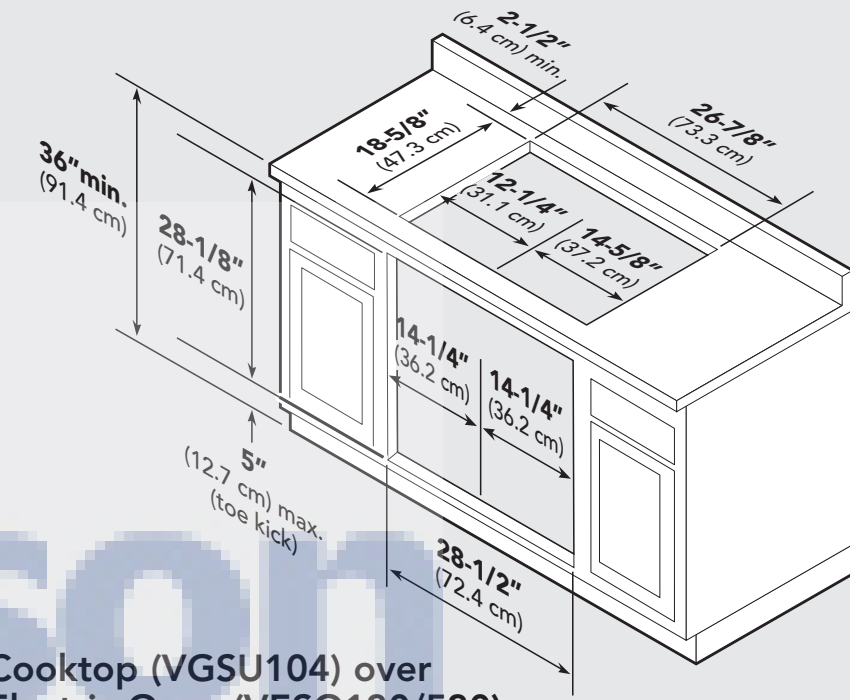
# Specifications (DGSU Designer)

Designer Gas Cooktops		
Description	DGSU101	DGSU161
Overall width	30-3/4" (78.1 cm)	36-3/4" (93.3 cm)
Overall height from bottom to top of grate	4-3/8" (11.1 cm)	
Overall depth from rear	21" (53.3 cm)	
Cutout width	29-1/8" (74.0 cm) min. to 29-7/8" (75.9 cm) max.	34-7/8" (88.6 cm) min. to 35-7/8" (91.1 cm) max.
Cutout height	3-1/8" (7.9 cm)	
Cutout depth	19-3/4" (50.2 cm)	
Gas requirements	To field convert from natural or LP/Propane, the orifice spuds and regulator must be physically changed. Order conversion kit DLPK to convert to LP. Uses standard residential 1/2" (1.3 cm) I.D. gas service line.	
Electrical requirements	120 VAC/60 Hz; 4 ft. (121.9 cm), 3-wire cord with grounded 3-prong plug attached to product.	
Maximum amp usage	2.0 amps	
Surface element rating		
Left front	16,000 Nat./12,500 LP (BTU) (4.1 Nat./4.0 LP (kw))	12,000 Nat./11,500 LP (BTU) (3.5 Nat./2.8 LP (kw))
Left rear	12,000 Nat./11,500 LP (BTU) (3.5 Nat./2.8 LP (kw))	10,000 Nat./9,500 LP (BTU) (2.9 Nat./LP (kw))
Center	N/A	16,000 Nat./12,500 LP (BTU) (4.1 Nat./4.0 LP (kw))
Right front	6,000 Nat./5,500 LP (BTU) (1.8 Nat./LP (kw))	6,000 Nat./5,500 LP (BTU) (1.8 Nat./LP (kw))
Right rear	8,000 Nat./7,500 LP (BTU) (2.1 Nat./LP (kw))	8,000 Nat./7,500 LP (BTU) (2.1 Nat./LP (kw))
Approximate shipping weight	49 lb. (22.0 kg)	74 lb. (33.3 kg)

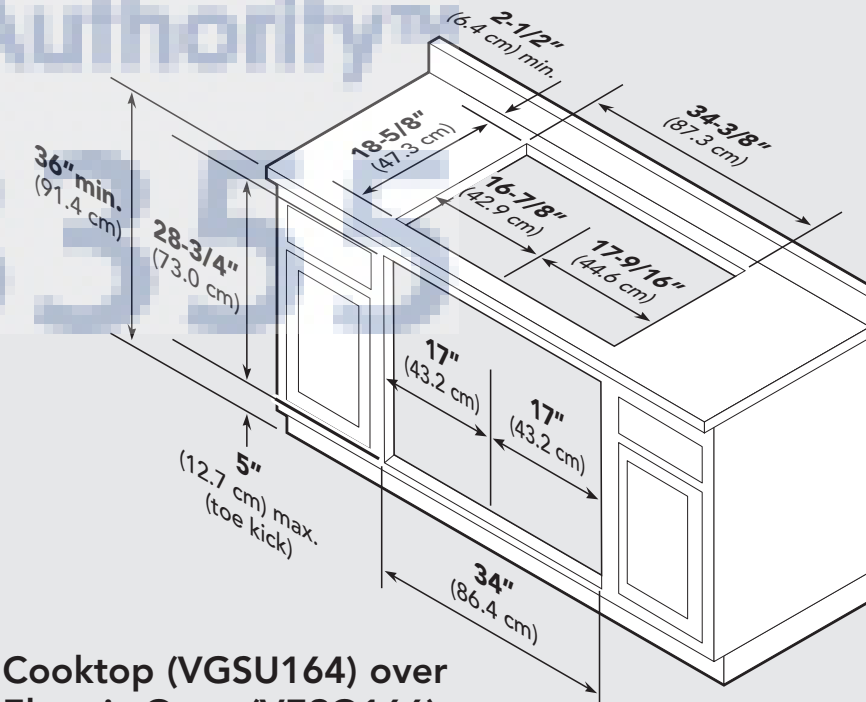
# Cutout Dimensions



# Cutout Dimensions (VGSU Cooktop over Single Electric Oven)



30" W. Cooktop (VGSU104) over 30" W. Electric Oven (VESO130/530)



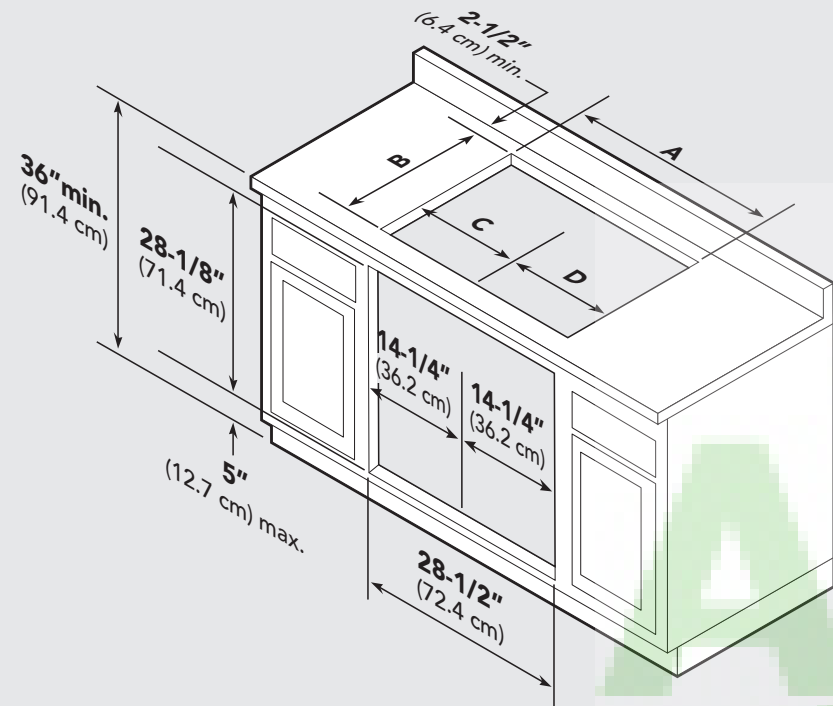
36" W. Cooktop (VGSU164) over 36" W. Electric Oven (VESO166)

Note: Refer to the oven installation instructions for undercounter dimensions.

	VGSU104	VGSU164	DGSU101	DGSU161
A	26-7/8" (68.3 cm) min. to 29-7/8" (75.9 cm) max.	34-3/8" (87.3 cm) min. to 35-7/8" (91.1 cm) max.	29-1/8" (74.0 cm) min. to 29-7/8" (75.9 cm) max.	34-7/8" (88.6 cm) min. to 35-7/8" (91.1 cm) max.
B	18-5/8" (47.3 cm) min. to 20-1/8" (51.1 cm) max.		19-3/4" (50.2 cm)	
C	2-1/2" (6.4 cm)		2-1/2" (6.4 cm)	

Note: Based on 24" deep cabinet with 3/4" backsplash.

## Cutout Dimensions (DGSU Cooktop over Single Electric Oven)

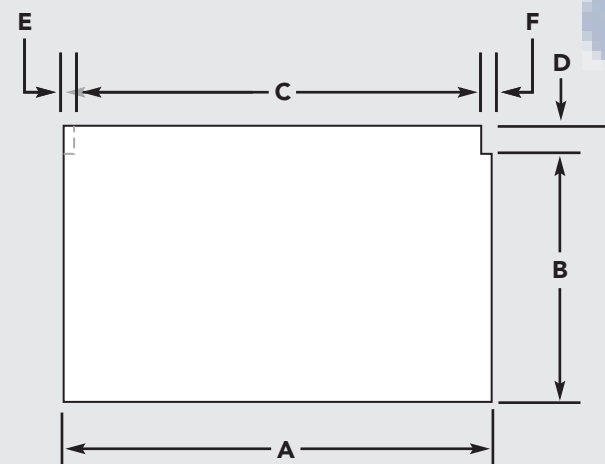


DGSU101	
A	29-1/8" (74.0 cm)
B	19-3/4" (50.2 cm)
C	14-3/4" (37.4 cm)
D	14-3/4" (37.4 cm)

### 30"W. Cooktop (DGSU101) over 30"W. Electric Oven (DSOE301/305)

**Note:** Refer to the oven installation instructions for undercounter dimensions. Installation will require an elbow to be installed off of the regulator.

## Downdraft Dimensions



	DGSU101	DGSU161	VGSU104	VGSU164
A	29-1/8" (74.0 cm)	34-7/8" (88.6 cm)	28-1/16" (71.3 cm)	34-1/4" (87 cm)
B	20-5/8" (52.3 cm)	20-5/8" (52.3 cm)	18-3/4" (47.6 cm)	18-3/4" (47.6 cm)
C	27 (68.6 cm)	33" (84.0 cm)	27 (68.6 cm)	33" (84.0 cm)
D	2-1/4" (5.7 cm)	2-1/4" (5.7 cm)	3" (7.6 cm)	3" (7.6 cm)
E	1-1/16" (1.1 cm)	15/16" (1.0 cm)	N/A	N/A
F	1-1/16" (2.7 cm)	15/16" (1.0 cm)	1-1/16" (2.7 cm)	1-1/4" (3.2 cm)

**Note:** Refer to the downdraft installation instructions.

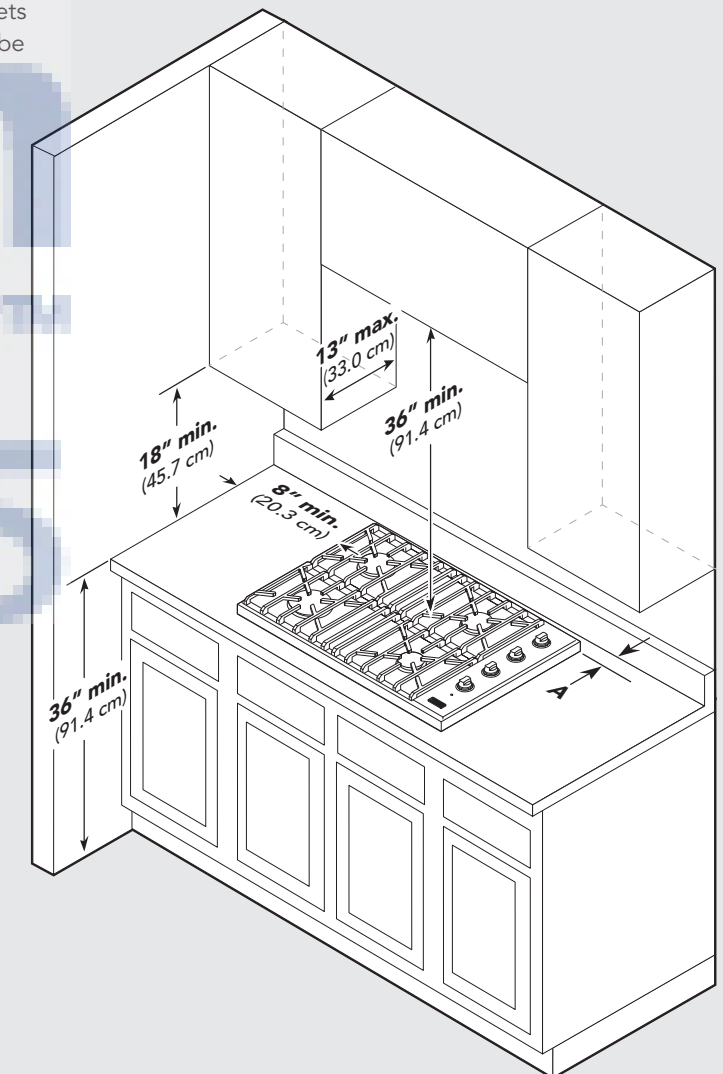
## Clearance Dimensions (Proximity to Cabinets)

### Proximity to Side Cabinet Installation

- The cooktop may be installed directly to existing base cabinets.
- The cooktop **CANNOT** be installed directly adjacent to sidewalls, tall cabinets, tall appliances, or other side vertical surfaces above 36" (91.4 cm) high. There must be a minimum of 8" (20.3 cm) side clearance from the cooktop to such combustible surfaces above the 36" (91.4 cm) counter height.
- Within the 8" (20.3 cm) side clearance to combustible vertical surfaces above 36" (91.4 cm), the maximum wall cabinet depth must be 13" (33.0 cm) and wall cabinets within this 8" (20.3 cm) side clearance must be 18" (45.7 cm) above the 36" (91.4 cm) high countertop.
- Wall cabinet above the cooktop must be a minimum of 36" (91.4 cm) above the countertop for a full width of the cooktop. This minimum height requirement does not apply if a rangehood is installed over the cooking surface.
- A 120 volt wall receptacle should be located approximately 6" (15.2 cm) below the countertop cutout and 12" (30.5 cm) from the right side of the cutout.

### Minimum Clearances from Adjacent Combustible Construction

- Above countertop 36" (91.4 cm) minimum
- Side 8" (20.3 cm)
- Rear
  - o VGSU—2-1/2" (6.4 cm) min.
  - o DGSU— 2-1/2" (6.4 cm) min.
- Within 6" side clearance. Wall cabinets no deeper than 13" (33.0 cm)
- Must be minimum 18" (45.7 cm) above countertop
- Wall cabinets directly above the product must be minimum 36" (91.4 cm) above the countertop

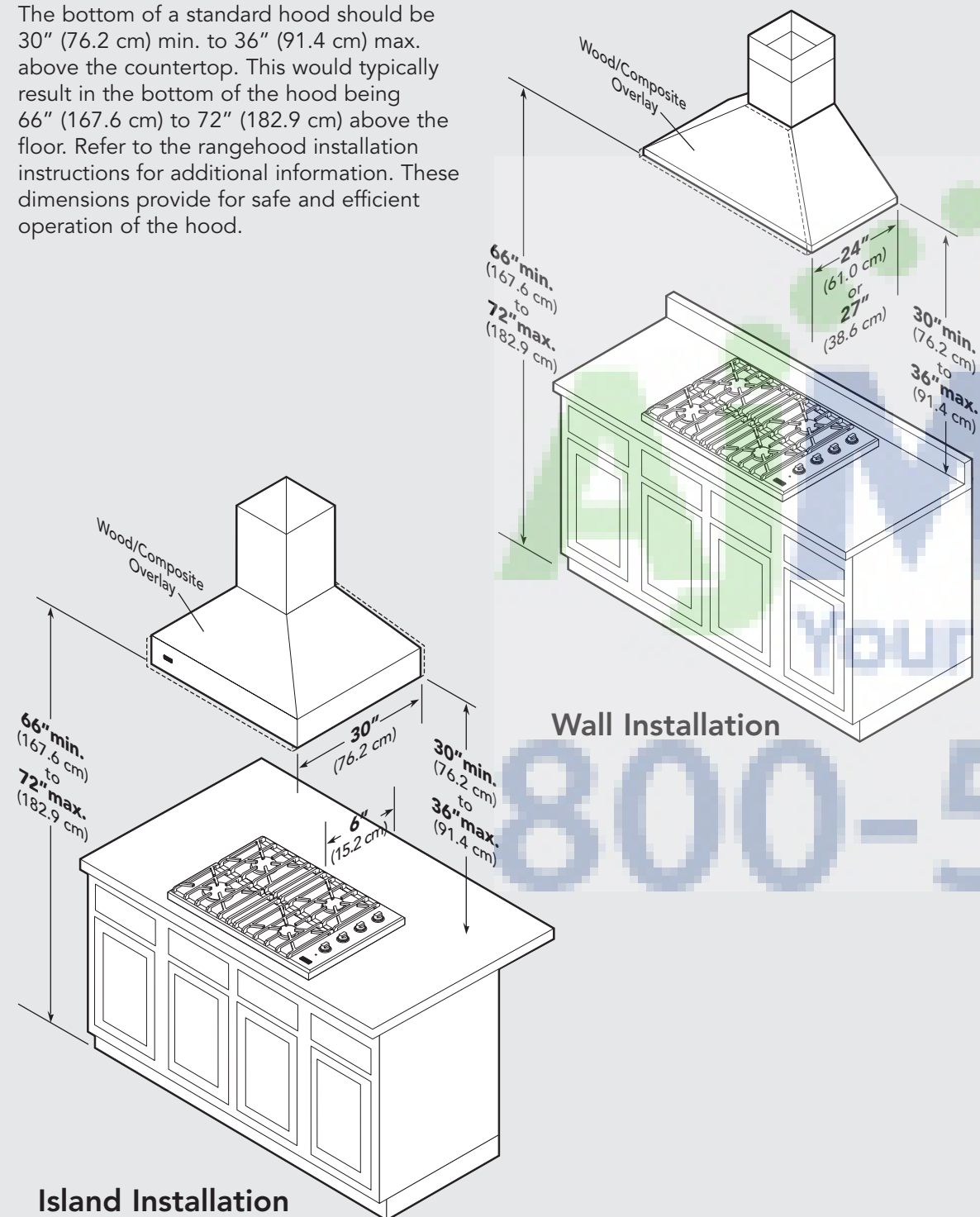


	VGSU	DGSU
A	2-1/2" (6.4 cm)	2-1/2" (6.4 cm)

**Note:** Dimensions shown are for use with combustible surfaces unless otherwise stated.

## Clearance Dimensions (Wood/Composite Overlay)

The bottom of a standard hood should be 30" (76.2 cm) min. to 36" (91.4 cm) max. above the countertop. This would typically result in the bottom of the hood being 66" (167.6 cm) to 72" (182.9 cm) above the floor. Refer to the rangehood installation instructions for additional information. These dimensions provide for safe and efficient operation of the hood.



## Electrical & Gas Requirements

### Electrical Requirements

There is no connection necessary beyond plugging the unit into a polarized, grounded, 120 volt, 60 Hz, 15 amp circuit. A minimum of 120VAC is required for proper operation of gas ignition systems. **DO NOT** use a GFI circuit. This circuit, however, **MUST** be grounded and properly polarized. The unit is equipped with 16-3 SPT2 power cord. **Note:** If electrical power is not supplied or is interrupted, the open top burners will have to be lit manually with a match.

### Gas Connection

The gas supply (service) line must be the same size or greater than the inlet line of the appliance. All cooktops use a 1/2" (1.3 cm) I.D. NPT (Sch40) inlet. Sealant on all pipe joints must be resistive to LP/Propane gas.

These cooktops are designed specifically for natural gas or liquid propane (LP) gas. It is shipped from the factory adjusted for use with natural or propane (LP) gas. Before beginning installation verify that the model is compatible with the intended gas supply.

**IMPORTANT:** Any conversion required must be performed by a qualified licensed plumber or gas service company. The proper conversion kit must be ordered from your authorized service agency or dealer.

### Manual shut-off valve:

- The installer-supplied valve must be installed in the gas service line ahead of the appliance and regulator in the gas stream and in a position where it can be reached quickly in the event of an emergency.

**In Massachusetts:** A "T" handle type manual gas valve must be installed in gas supply line to the appliance.

### Pressure regulator:

- All heavy-duty, commercial-type cooking equipment must have a pressure regulator on the incoming service line for safe and efficient operation, since service pressure may fluctuate with local demand. The regulator supplied with the cooktops must be installed before any gas connections are made.
- Manifold pressure should be checked with a manometer; natural gas requires 5.0" WCP and LP/Propane requires 10.0" WCP. Incoming line pressure upstream for the regulator must be 1" WCP higher than the manifold pressure in order to check the regulator. The regulator used on this cooktop can withstand a maximum input pressure of 1/2 PSI (14.0" WCP). **If the line pressure is in excess of that amount, a stepdown regulator will be required.**
- The appliance must be disconnected from the gas supply piping system during any pressure testing of that system.

# Electrical & Gas Requirements

## Rigid Connections:

- Incoming gas is brought from an intake pipe (not supplied) at the rear of the unit to the pressure regulator; then to the manifold pipe for distribution. The only connection necessary is from the service supply, through the shut-off valve (not supplied), to this intake pipe (not supplied) to the regulator supplied, but not connected through the cooktop.

**In Massachusetts:** This appliance must be installed with a 36" (3-foot) long flexible gas connector.

## ⚠ CAUTION

Before placing the cooktop into operation, always check for gas leaks with a soapy water solution or other acceptable method. **DO NOT USE AN OPEN FLAME TO CHECK FOR LEAKS.**

## LP/Propane Conversion

The VGSU and DGSU models are field convertible to LP/Propane gas or natural gas. The orifice spuds and regulator must be physically changed. For the VGSU/DGSU models, order conversion kit NKPDC to convert to natural and LKPCDC to convert to LP/Propane. Gas conversions should be completed by a qualified technician. Refer to instructions in conversion kit for gas conversions.

## Initial Ignition of Burners

All cooktops are tested before leaving the factory. Field adjustments may be necessary for proper mixture of gas and air for proper operation. When the cooktop is connected to gas and electrical service, it should be adjusted by a qualified technician. If it is not, contact your dealer for the name of their authorized service agency in your area. Gas conversions and initial installation adjustments are not the responsibility of the manufacturer. To convert the VGSU model to LP or natural gas, the orifice spuds and regulator must be physically changed. The proper conversion kit must be ordered from your authorized service agency or dealer.

## Proper Lighting and Shutdown Instructions

1. To ignite the surface burners, turn the knob counter clockwise to any position.
2. Upon ignition of the surface burner, turn the knob to the desired position, (HI, Med, or Low).
3. To shutdown the burner, turn knob clockwise to the OFF position.
4. In case of failure, shut the gas OFF using the installer supplied manual shut-off valve.

# General Information

## ⚠ CAUTION

### BURN HAZARD

The use of cabinets for storage above the appliance may result in a potential burn hazard. Combustible items may ignite, metallic items may become hot and cause burns. If a cabinet storage is to be provided the risk can be reduced by installing a range hood that projects horizontally a minimum of 5" (12.7 cm) beyond the bottom of the cabinets.

## ⚠ WARNING

This appliance shall not be used for space heating. This information is based on safety considerations.

- All openings in the wall behind the appliance and in the floor under the appliance shall be sealed.
- Keep appliance area clear and free from combustible materials, gasoline, and other flammable vapors.
- **DO NOT** obstruct the flow of combustion and ventilation air.
- Disconnect the electrical supply to the appliance before servicing.

When removing cooktop for cleaning and/or service:

- Shut off gas at main supply
- Disconnect AC power supply
- Disconnect gas line to the inlet pipe.
- Lift appliance out of cabinet cutout.

## Electrical Requirement

Normal grounded household current, 120 volts, 60 Hz, 15 amps, single phase. Electrical installation should comply with national and local codes.

## Air Supply and Ventilation

Means must be provided for any heavy-duty cooking appliance to exhaust combustion waste product to the outside of the building. It is recommended that the cooktop be set under a powered, vented exhaust hood, or non-vented recirculating hood. Nothing should obstruct the flow of combustion and ventilation air.

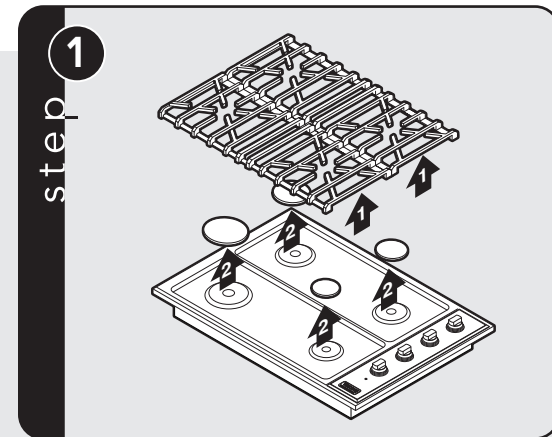
## Gas Manifold Pressure

Natural gas – 5.0" W.C.P.  
LP/Propane – 10.0" W.C.P.

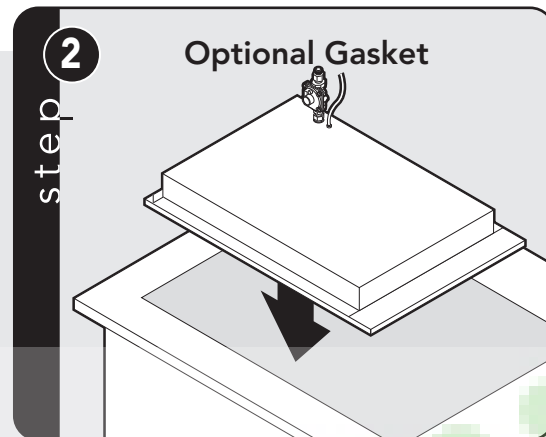
## Flexible Connections

If the unit is to be installed with flexible couplings and/or quick disconnect fittings, the installer must use a flexible connector of at least 1/2" I.D. (1.3 cm) NPT with suitable strain reliefs and comply with ANSI Z21.41 and Z21.69 standards.

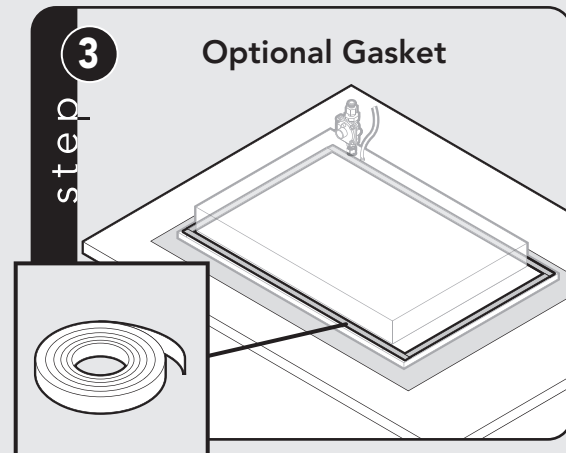
## Installation



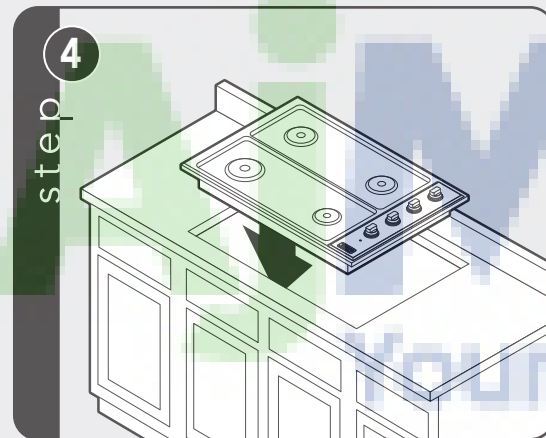
Remove the grates and burner caps.



Turn the cooktop upside down and place on a non-scratch surface. **Note:** Make sure there are no loose objects on the cooktop before turning upside down.

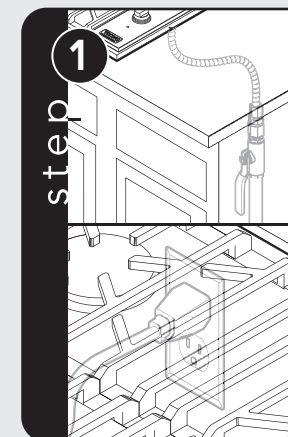


Peel away the plastic covering and place the gasket material all the way around the burner flange. **IMPORTANT:** Make sure the corners are covered completely, leaving no air gaps.



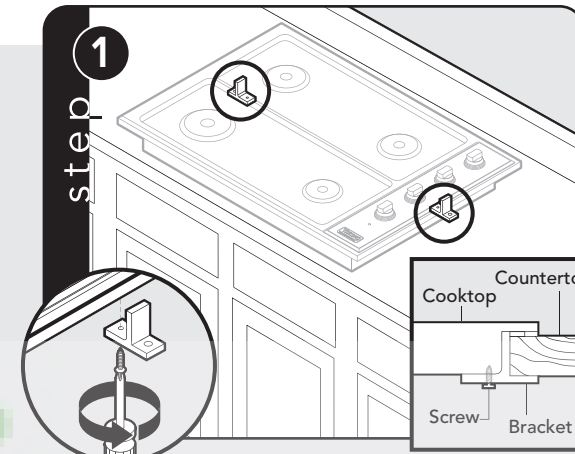
Turn the cooktop over and place into countertop opening.

## Gas & Electrical Connection

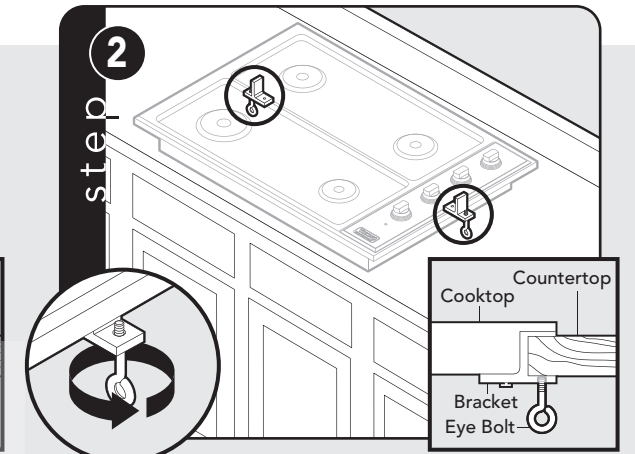


**Note:** Refer to "Electrical & Gas Requirements" section for proper installation information.

## VGSU Bracket Installation

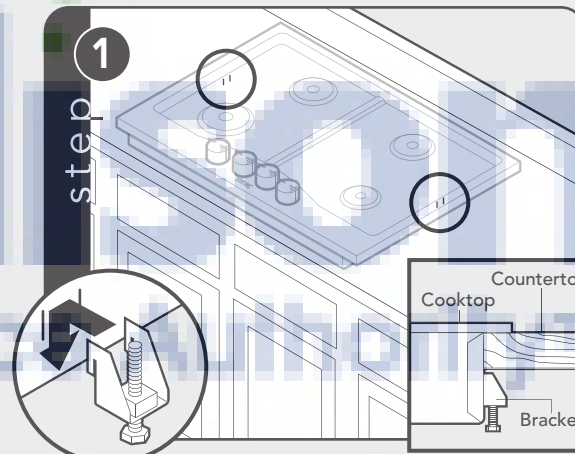


Screw hold down brackets using the #10 x 1/2" sheet metal screw to the burner box.

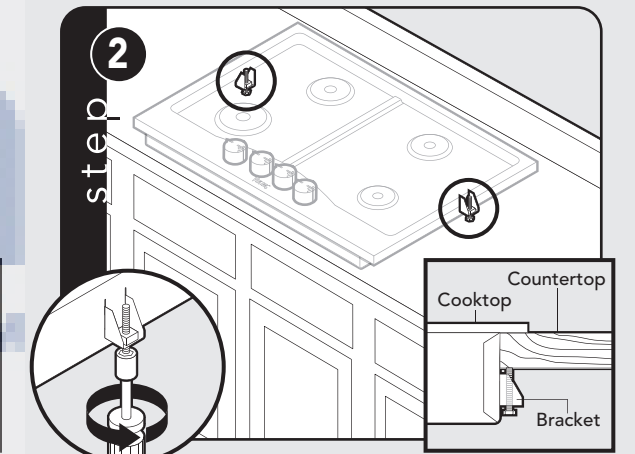


Screw the eye bolt into the self-retaining nut and tighten firmly against bottom of countertop.

## DGSU Bracket Installation

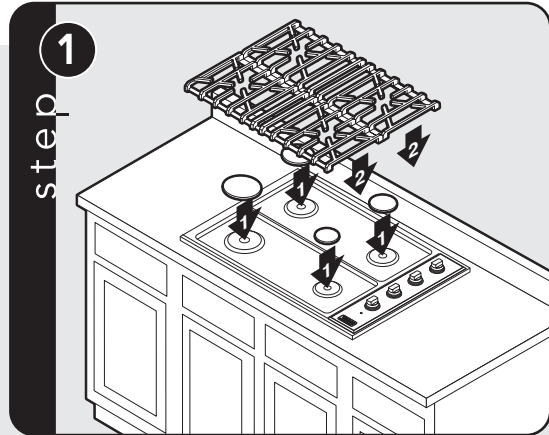


Place a bracket in the slots and lower until the bracket catches.



Use the bolt to tighten the cooktop to the countertop. **Note:** There must be a 1" (2.5 cm) clearance under counter on all four sides of cooktop.

# Final Installation



Replace the burner caps and grates.

**Note:** The narrow edge of grate goes toward center of unit.

# Final Preparation

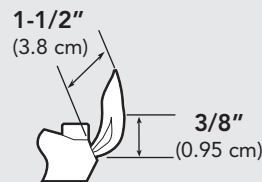
- New units are cleaned at the factory to remove any visible signs of dirt, oil, grease, etc. remaining from the manufacturing process. Some stainless steel parts may have a plastic protective wrapper which must be peeled off. The cooktop should be washed thoroughly with hot, soapy water and then rinsed and wiped dry to remove these film residues and any installation dust or debris before being used for food preparation.

- All stainless steel body parts should be wiped regularly with hot, soapy water and with a liquid cleanser designed for this material if build-up occurs. **DO NOT USE** steel wool, abrasive cloths, cleansers, or powders. If it is necessary to scrape stainless steel to remove encrusted material, soak with hot, wet cloths to loosen the material, then use a wood or nylon scraper. **DO NOT USE** a metal knife, spatula, or any other metal tool to scrape stainless steel. Scratches are almost impossible to remove.

# Performance Checklist

A qualified installer should carry out the following checks:

- Check top burner ignition. The low flame should light at every port.
- Starting with the left front burner, turn the corresponding knob to the HI position – see drawing for proper flame height.
- Repeat steps for other burners.



# Service & Registration

Only authorized replacement parts may be used in performing service on the appliance. All servicing should be referred to a qualified technician.

Contact Viking Range Corporation, 1-888-VIKING1 (845-4641), for the nearest service parts distributor in your area or write to:

**VIKING RANGE CORPORATION  
PREFERRED SERVICE  
1803 Hwy 82W  
Greenwood, Mississippi 38930 USA**

The serial number and model number for your appliance can be found by looking under the cooktop.

Record the following information indicated below. You will need it if service is ever required.

Model number \_\_\_\_\_

Serial number \_\_\_\_\_

Date of purchase \_\_\_\_\_

Date installed \_\_\_\_\_

Dealer's name \_\_\_\_\_

Address \_\_\_\_\_

**These installation instructions should remain with the unit for future reference.**

